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Military Intelligence

PROFESSIONAL BULLETIN

April-June 1996

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KENNETH J. SHOULDICE
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FORCE XXI
INTELLIGENCE XXI

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FROM THE EDITOR

Military Intelligence

As the new editor of the **Military Intelligence Professional Bulletin**, I look forward to presenting the latest "cutting-edge" trends and issues that face Military Intelligence (MI) today and in the future. This quarter, we focus on issues relevant to Force XXI. I expect to see many "Letters to the Editor" next quarter, as these articles are both timely and critical to the MI branch. After reading the articles presented in this issue, I challenge all of you, as MI professionals, to respond to the ideas presented—use the magazine as a vehicle to share your opinions and your experiences.

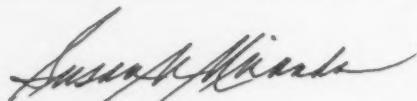
In our last issue, Lieutenant Colonel Brian Keller discussed a possible 10th Mountain Division Deployable Intelligence Support Element (DISE). Two of his counterpart G2s respond in this issue: Lieutenant Colonel Victor Rosello wrote an article about an airborne "DISE" and Lieutenant Colonel John "Randy" Brooks sent his comments in a letter to the editor. We expect to publish responses from the G2s of the 3d Infantry Division (24th ID until May 1996) and 101st Air Assault Division in the July-September issue. We thank these very busy soldiers for sharing their wisdom and time.

MIPB and the Doctrine and Publications Division are sad to announce the departure of our Art Director, **Corporal Jeff Preuninger**. He has served the magazine for more than four years; during that time, his fresh and creative approach to graphic design has helped transform our magazine into a truly professional journal. Corporal Preuninger's next assignment will take him to Washington, D.C., where the Pentagon will use his considerable talents. We will miss him, but wish him great success in all of his future endeavors.

For our readers who are thinking about writing articles for the **MIPB**, we currently plan the following cover topics for future issues:

- ☐ Information operations, information warfare, and open-source information for January-March 1997 (due 1 October 1996).
- ☐ We would like photos even without articles (on the back give us your name and address, the photographer's full name, and a caption identifying people and activity).

You may write about any topic you think may be of interest to our readers. We always welcome articles from our sister Services too. We cannot guarantee we will publish your article, even if it is about a subject listed above.



Writers of the Year and Quarter

MIPB is pleased to announce the 1995 winners of the Writer of the Year contest. **Writer of the Year:** Major John F. "Frank" Lady, "Directing Intelligence Operations: 'To Link or Not to Link' PIR," July-September 1995. **Runner-up:** Major Eric L. Lamberson, "The Tactical Analysis Team," January-March 1995. **Honorable Mentions:** Major Michael E. Bigelow, "Intelligence in the Philippines," April-June 1995; Major Darrell W. Bott, "Maintaining Language Proficiency," October-December 1995; Chief Warrant Officer Two Mark Ingram, "ASAS and 1st Cavalry Division," January-March 1995; and Lieutenant Commander Darren Sawyer, USN, "JTF JIC Operations: Critical Success Factors," April-June 1995.

Lieutenant Colonels John R. Brooks and Steven L. Campbell are our Writers of the Quarter (April-June 1996) for the article, "The EX-FOR: Intelligence in Force XXI."

Congratulations to all the winners and thanks to all of our authors for their great articles, book reviews, and letters to the editor. It is contributions like yours that make **MIPB** the professional forum for military intelligence professionals.

How to Submit an Article

1. Select a relevant topic of interest to the military intelligence community.
2. Write an outline to organize your work. Put the bottom line up front and write clear, concise introduction and conclusion paragraphs.
3. Follow proper rules of grammar. Consult **DA Pamphlet 600-67** or William A. McIntosh's **Guide to Effective Writing**, if necessary.
4. Maintain the active voice as much as possible. Write "Congress cut the budget" rather than "the budget was cut by Congress." (See **DA Pamphlet 600-67, Effective Writing for Army Leaders**, paragraph 3-2.b[1].)
5. Send the article to Commander, USAIC&FH, ATTN: ATZS-TDL-B, Fort Huachuca, AZ 85613-6000. Please include with your article—
 - a. Pictures, graphics, and crests with an adequate description and photographer credits. (We can return photos if so requested.)
 - b. A computer diskette with the article in Word Perfect, Microsoft Word or ASCII. Also any graphics files, separated from the text.
 - c. A short biography with the full names of all authors of the article. The biography should include each author's current duty position, other related assignments, civilian degrees, and advanced military education (CGSC, War College, SAMS, MSSJ, SEIP, PGIP). (Tell us if we can print both your telephone number and E-mail address with the biography.)
 - d. A cover letter with work, home, and E-mail addresses and telephone numbers, stating your intent to publish the article.
 - e. A release by your local security office to ensure your article is unclassified, nonsensitive, and releasable to the public.
6. Remember, content is the most important part of your article. When in doubt, **send us your article**—we can work out the details.

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01421

VANTAGE POINT

by Brigadier General John W. Smith

INTELLIGENCE TRAINING XXI: READY NOW

Editor's Note: Brigadier General Smith, Deputy Commanding General of United States Army Intelligence Center and Fort Huachuca, is Major General Thomas' guest writer for this quarter. Major General Thomas discusses his vision for Intel XXI on page 9.

This issue focuses on Force XXI and many of the initiatives supporting military intelligence's (MI) transition to an intelligence force structure that can perform effectively on the 21st century battlefield. As you will see in the articles that follow, our battlefield operating system (BOS) is well postured in terms of having a vision of how MI will fight, in terms of having a grip on what the force structure should look like, and in terms of being actively engaged in the Army's Advanced Warfighting Experiments (AWEs).

Intel XXI—A Training Challenge

Because Force XXI has been driven in many respects by technology, it is natural that much of the related discussion dwells upon digitization, automated fusion, advanced communications and the like. Accompanying the technological challenges, however, are the less frequently discussed, yet real set of training challenges. At the end of the day, the value of intelligence to the commanders we serve will still be measured in terms of whether or not intelligence "delivered the goods." Those judgements, of course, will be influenced by how well our systems work, but more importantly, they will be influenced by how well-trained we are.

The Primacy of Proficiency

What is essential is that we, as MI professionals appreciate and focus on the fact that while training has always been a key determinant in effective performance, its significance is going to dramatically increase in the Force XXI operational setting. In particular, Force XXI will place increasing value on MI professionals who are accomplished. But has not this always been the case? Yes, soldiers, leaders, and units will need proficiency in many of the same areas that required proficiency twenty years ago. What is new, though, is the need to demonstrate this proficiency under new, more difficult operational conditions. As Force XXI envisions decentralized, dispersed operations where forces concentrate combat power only at the decisive time and place, it is es-



U.S. Army photo

sential that intelligence be able to "deliver the goods" in this new, dynamic operational setting. As the first order of business, this requires a truly proficient MI force; that is, ones who can "do" versus ones who only understand what needs to be done in abstract terms.

While the Force XXI battlefield will place new demands on the competency of the MI professional, in many respects the words used to describe those competencies will not be new. Rather, the ability to "deliver the goods" under more challenging standards will be new. The old tried and true job requirements for the MI professional remain—be an expert on friendly operations, on the intelligence BOS, and be a proficient analyst (the answer is not yet in the "bit bucket"). If anything must be added to the MI professional's kit bag, it will be the need for them to demonstrate proficiency in accessing and navigating (either as a leader or at the technical level) the multitude of networks and information sources that must be used in the global or military information networks to get needed information to the battle commander.

Even so, what does proficiency really mean? In a nutshell, it means practice. It means devising and structuring realistic training and then doing it! In

Force XXI, it means that the intelligence force will have to be supported with better intelligence simulations and scenarios to drive home-station training and Battle Command Training Programs. It means that the combat training centers will need to adjust to allow for realistic intelligence to more effectively drive their training. But for most of you, it means that the real movers and shakers in Army intelligence units (the majors and lieutenant colonels, the senior non-commissioned officers, and the warrants) must actually take ownership for championing proficiency in their units by mandating tough training—training that requires that everyone "walk the walk."

Schoolhouse-Unit Training

At Fort Huachuca, we are pursuing a host of initiatives to tackle the Intel XXI training challenges. Some, like distance-learning and others that fall loosely under the rubric of a "schoolhouse without walls" have been discussed here before. The thrust of these efforts, however, is to enable a more effective training partnership between the field and the school. Our overarching goal is the pursuit of training and training development that will allow an MI unit, an MI soldier, or an MI leader to legitimately claim

that they are "ready now." This means that there can be no seam between training in the school and the unit, and it means that we should seek to do training developments just once; then, using technology, expeditiously export the results of those efforts to the field.

As we proceed along this path, we will be seeking your help to rapidly prototype some training by forming school-field partnerships on selected training efforts. In taking this tack though, it is essential that we see the training challenge through your eyes. To this end, I welcome your comments and suggestions. Send E-mail to me at smithj%hua1@huachuca-emh 11.army. mil.

Prior to assuming his current position in October 1995, Brigadier General Smith was the Director, Intelligence Directorate (J2), U.S. Southern Command, Panama. Brigadier General Smith has commanded the 207th Military Intelligence Brigade, VII Corps in Germany and later in Saudi Arabia during Operations DESERT SHIELD and DESERT STORM; the 104th Military Intelligence, 4th Infantry Division, Fort Carson, Colorado, the 1st Military Intelligence Company, 1st Infantry Division, Fort Riley, Kansas; and the Pittsburgh Field Office, Region III, 109th Military Intelligence Group.

ALWAYS OUT FRONT!

CSM FORUM

by Command Sergeant Major Randolph Hollingsworth

"There must be, within our Army, a sense of purpose. There must be a willingness to march a little farther, to carry a heavier load, to step out into the dark and the unknown for the safety and well-being of others."

—General Creighton Abrams

In this issue, I will divide my article into two parts. Master Sergeant Paul Moore, the Directorate of Combat Developments Sergeant Major, wrote the first part. His article discusses information operations (IO). I will address communication skills.

Information Operations

FM 100-6, *Information Operations*, describes IO as continuous military operations within the military information environment that enable, enhance, and protect the commander's decision cycle and mission execution to achieve an information advantage across the full range of military operations. Information operations include interacting with the global information environment and exploiting or denying an adversary's information and decision systems.

The Army, like all areas of our society, faces the requirement to move into a new age. The advent of the technology and information age has made it possible for the Army to re-tool and reassess its methods for

operating, and has given us an unparalleled opportunity to improve the efficiency and the effectiveness of our ground forces. Our noncommissioned officers (NCOs) and all leaders must display the will to adapt and have the vision to design, field, train, and deploy the force of the 21st century that will dominate and win in the information battlespace. While these changes are still in their infancy, the impact has been great; the United States has been in the forefront as a world technology leader. Nowhere is our leadership so great as in our military use of information technology.

For us to remain the preeminent force in the world of military technology, Army leadership at all levels must change their focus and way of thinking. We are just beginning to know the realities of the information age for the entire force. This will forever alter the way we do business.

In addition to precision weaponry, the Army sees its future in the advanced collection, communication, processing, analysis and display of these massive amounts of information. In order to take advantage of this information, technology, and increased capability now available, it is necessary that the Army learn to fight on the information battlefield. To this end, we all know that change, especially on a large scale does

not come easily. However, technology and the nearly unlimited access to information is insignificant if it is not properly used.

IO Exercises

In order to further refine the concepts described in **FM 100-6**, the U.S. Army Intelligence Center and Fort Huachuca (USAIC&FH) organized the IO Task Force. The Task Force conducted an Information Operations Wargame and Senior Seminar in November 1995 at Fort Huachuca, Arizona, and another Senior Seminar at the Army War College, Carlisle Barracks, Pennsylvania, in January 1996. This wargame, which included 27 agencies and units throughout the Department of Defense (DOD), went far in clarifying and refining the methods for applying the new paradigm of IO to the Army battlefield.

Army IO is about "interacting with the global information environment" while operating within the "military information environment." Army IO also focuses on the "decision cycle" or that process by which military commanders gather, analyze, process, and disseminate information in order to make military decisions. While a major goal of Army IO is to assist the friendly commander in achieving better decisions, it also contains both an attack element and an exploit element which seek to deny enemies full use of their own decision cycles. Army IO has, as its overall goal, the need to achieve an "information advantage or dominance" over our adversary.

In order to capitalize on the power of the information age, information operations must become a standard practice in all Army units. It has been said that smart commanders have always done IO. It is our task now to ensure that all commanders, all staffs, in fact, all soldiers think and act to achieve information dominance.

None of what has been discussed here can happen unless our soldiers and leaders have been trained and remain focused to make it happen. Some of this can be taught during precommand and professional development courses, but it will not take hold as a key concept until it is shown to have value on the battlefield.

The USAIC&FH has shown, through the IO Wargame, that IO has value on the battlefield. We must accomplish this before the vision of information age warfare represented by **FM 100-6** will reach reality in the Army. We must field technology systems, both attack and battle command related, to reach the state of information dominance envisioned by today's military leaders. Still, we can execute the tenets of IO and command and control warfare. Although primitive, they can enhance mission accomplishment for all units. Information analyzed and used is applied knowledge.

KNOWLEDGE IS POWER!

The Importance of Communications

The future of the Army rests with leaders who effectively communicate. All leaders who wear the chevron of an NCO, from corporal to command sergeant major, must be able to communicate the commander's intent as well as their own.

The 21st century will give the Military Intelligence Corps more avenues through which to support commanders with intelligence. All of our systems are designed with just one purpose in mind: to give commanders real-time factual intelligence. However, our systems are only as good as the soldiers who operate them. Soldiers who perform data input or retrieval must be able to present the true picture of the battlefield in words. Our intelligence summaries, intelligence reports and intelligence briefings are useless if no one can understand them or figure out what we are trying to say. How can we brief the current enemy status if we cannot orally present an accurate order of battle?

A Learning Experience

In 1976, as a young specialist-fifth class in Germany, I submitted a report on ground surveillance radar to my officer in charge. I felt a great deal of pride since it was the first report over three paragraphs in length I had written in eight years of military service. After reading the report, the captain called me into his office and gave me the bad news. My report was one of the worst he had ever read. Being the great officer that he was, he gave me some tips to improve my writing skills. "First," he said, "enroll in a college course that teaches basic writing skills. Second, write often, and read books and newspaper editorials. Newspaper editorials will give you the opportunity to see different styles of writing. Third, come over to my house tonight and we will work on your report writing skills." I tell this story because I want to emphasize that I had a weakness I do not want any NCO to have. Another important reason for this story is that at some point earlier in my career, an NCO could have pulled me aside and helped me with my weakness.

Have you ever presented a briefing to a group of soldiers and while you were talking, you noticed a look of puzzlement on their faces? How many times after a formation, have you noticed soldiers running up to the first sergeant and asking plenty of questions? How often have you published a memorandum for your unit and later on, as you walk through the barracks, you notice that some soldier had made corrections on your memorandum and gave you a failing grade? When you give an oral tasking to your platoon sergeants, do they all come back with the same results? When a soldier wants a few minutes of your time to tell you about a problem, do you do all the talking and none of the listening? These examples are signs of NCOs with poor communication skills.

Whether it is talking, writing or listening, we owe it to our soldiers to be able to communicate effectively with them and our leaders. We can no longer afford to have leaders with weak communication skills. The communication skills that we use to lead and guide our soldiers on unit missions must equal that of our officers. I do not ask that you use big words or fancy sentences; my point is that we need to use clear, concise language so that everyone receives the same message.

The complete soldier is a soldier that is technically and tactically sound with the ability to communicate clearly and concisely. The opportunity to fail or succeed depends on our proficiency to move, shoot, and communicate.

Communication Skills

Thanks to our Noncommissioned Officer Education System and self-development initiatives, our NCO Corps has come a long way in improving communication skills. But we still have that small percentage of NCOs with weak communication skills. These are the NCOs and junior enlisted soldiers that we leaders need to point in the right direction. These are the soldiers whom we must mentor, counsel, and teach the importance of good communication.

When we, as a corps of professional NCOs, have eliminated this problem, we will be able to see the re-

sults in different ways. Our NCO evaluation reports will give Department of the Army promotion boards a better snapshot of our soldiers. All of our soldiers will understand our standard operating procedures. Operations orders will explain the commander's intent and what part each element plays in accomplishing the mission. Good communication also helps to eliminate or prevent rumors from starting because someone fails to communicate correctly to their soldiers. We also prepare our soldiers for a life after the military, where the ability to communicate can either help or hinder a person from succeeding in the civilian sector.

I charge every NCO with the responsibility of developing a program in their battalions, companies, platoons, and squads that will ensure that every enlisted soldier will be able to communicate effectively today and in the 21st century. Do not be afraid to start a reading or writing program in your unit using DA PAM 600-67, *Effective Writing for Army Leaders*, as a guide. Evaluate your NCOs' ability to give briefings. Direct your junior NCO as well as your senior NCO to make speeches at graduations and give NCO Development Programs that require NCOs to build on their communications skills. Do not be afraid to do the right things when we prepare our Army for the 21st century.

ALWAYS OUT FRONT!

LETTERS

To the Editor:

Lieutenant Colonel (LTC) Brian Keller has really captured the essence of a deployable intelligence support element (DISE) ["Building a Division DISE," *Military Intelligence Professional Bulletin*, Jan-Mar 96]. Many people are still confused by the concept. For instance, in my division, people have been known to look for the DISE in the headquarters and headquarters company or military intelligence (MI) battalion modified table of organization and equipment!

It is a very powerful concept. The 4th Infantry Division (ID) Mechanized (M) will not go anywhere without it. We even took a DISE to our Battle Command Training Program seminar at Fort Leavenworth, Kansas. This al-

lowed us to connect back to Fort Hood, Texas, and employ other parts of the division. LTC Keller's statement that *"taken together, the division DISE and the brigade analysis and control team form a very powerful analysis and dissemination combination"* is spot on! We also deployed a DISE with Task Force-on-Task Force External Evaluations at Fort Hood in support of the Brigade S2. We should change the appropriate regulations to permit the DISE to deploy to every command training center with every brigade. We will not deploy a brigade anywhere without a DISE of some form. This is true in Bosnia and was true in Haiti, Somalia and the recent return trips to Southwest Asia. We should train as we fight and brigades do not fight alone.

In 4th ID (M), the Experimental Force (EXFOR), we are now looking at the command posts for the Division XXI. The current concept is to have forward and main command posts, and no separate rear command post. Guess what! The forward command post or tactical analysis center has a DISE with it. The Division XXI DISE is a little larger than the one described by LTC Keller, but the functions are basically the same. We used currency of information as the deciding factor for allocating various intelligence functions to the two command posts. If its function deals with real-time information rather than current information, the function is in the DISE. The analysis and control element (ACE), with the all-source data-

(Continued on page 60)

Force XXI: Redesigning the Army Through Warfighting Experiments

by Lieutenant General Paul E. Menoher, Jr.

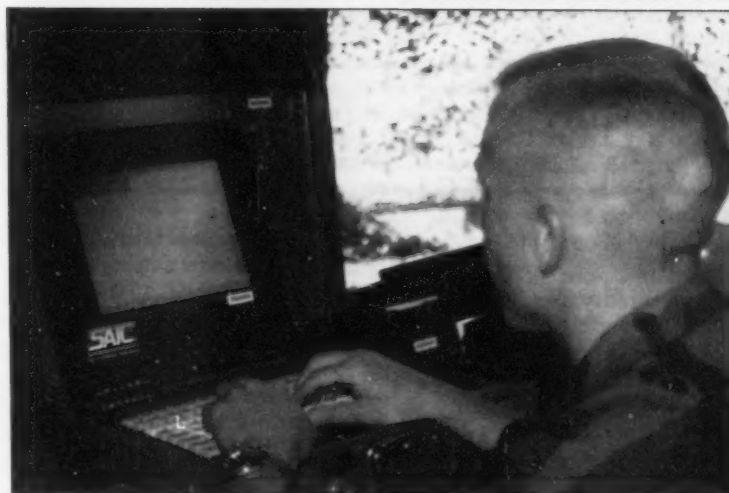
Our Army has made huge progress over the last few years, transforming itself from a Cold War Army to a force projection Army, and military intelligence (MI) has been at the forefront of that change. However, neither we in MI nor the U.S. Army as a whole can rest on our laurels; rather, we must continue to push the envelope to ensure we retain our technological superiority and the capability for decisive victory over any adversary.

This is what Force XXI is all about. We are pushing the envelope and transforming today's very good Army into an even better information age, knowledge- and capabilities-based Army, capable of land force dominance across the continuum of 21st century military operations.

A Vision and a Process

Force XXI is both a vision and a process: a vision of what the Army of the early 21st century will look like and be able to accomplish, and a process through which we define and achieve this vision. It must be noted at the outset that Force XXI is not a final design; instead it is a dynamic vision and process that will change over time—a journey, not a destination.

Through the Force XXI process, we will totally redesign the Army by the turn of the century, so that we can enter the 21st century ready to meet the many challenges of the new millennium. As we go through this transformation, it will affect every battlefield operating system (BOS) and organization. The transformation



U.S. Army photos

will be on two major axes, supported by a third. The first axis, called "Joint Venture," will totally redesign the table of organization and equipment (TOE) Army in a series of Advanced Warfighting Experiments (AWEs). The experiments focus on the designated experimental force (EXFOR), the 4th Infantry Division (Mechanized) (4th ID(M)) at Fort Hood, Texas. The second axis will re-

design the table of distribution and allowance (TDA) and institutional Army and will affect every major command and staff, including the Army Staff. A third axis, the Army digitization axis, will support both of these main axes by helping to inject information age technology into the Army.

The fundamental hypothesis of Force XXI is that if we know how our current baseline organizations

perform, then by applying information age technology to those organizations, training to standard and conducting experiments, we can gain insights into how much our battlefield performance has improved. These insights will also enable us to develop new organizational designs and operational concepts to capitalize on our improved battlefield capabilities.

As we start the Force XXI process, two questions arise regarding MI. First, how are we, as a BOS, postured to go through Force XXI? Second, what are the likely impacts on us as a branch?

MI Posture

Let me answer the first question by saying we are extremely well positioned by virtue of the fact that—

- ☐ We are fielding a new family of collection, processing and dissemination systems.
- ☐ We have a new operational concept of support to a force projection Army, and from it new and tested doctrine based on five solid tenets.
- ☐ We are fielding new organizations which are smaller, modular, and deployable to facilitate support to force projection operations.

In addition, we have been in the lead in experimentation with our Operation DESERT CAPTURE series of exercises. DESERT CAPTURE I, conducted in late 1992 at the National Training Center (NTC), gave us the first insights into the power of the information age technology we were fielding. These systems include the All-Source Analysis System (ASAS), the Joint Surveillance Target Attack Radar System (Joint STARS) Ground Station Module (GSM), and the TROJAN Special Purpose Integrated Remote Intelligence Terminal (SPIRIT). It also brought our new MI operational concept to life and demonstrated the "goodness" of our new five-tenet doctrine (see Figure 1). During NTC rotation 94-7 in April 1994, MI conducted

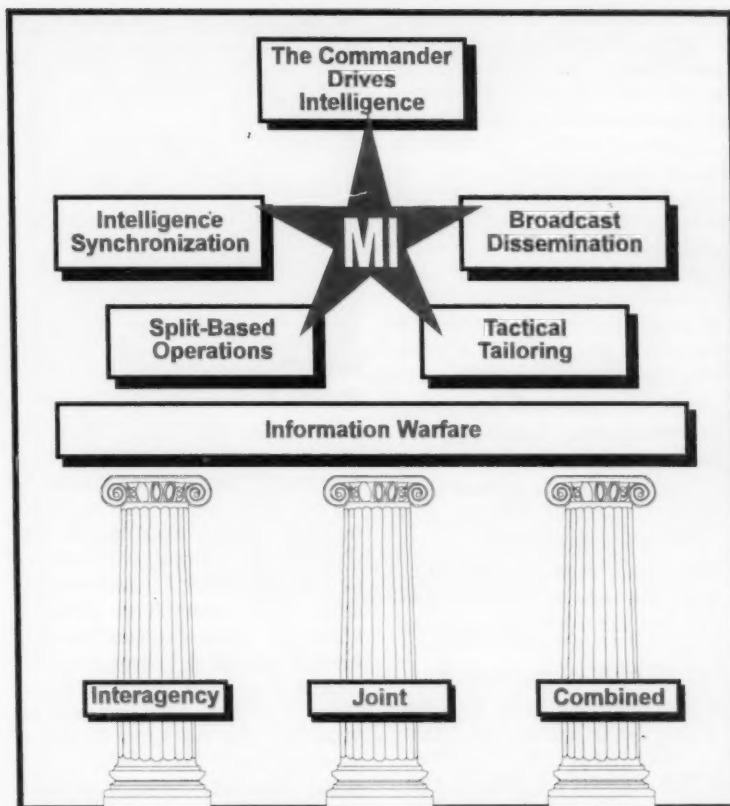


Figure 1. Doctrinal Tenets for MI Support in Force Projection Operations.

its DESERT CAPTURE II experiment in conjunction with the larger technology demonstration, DESERT HAMMER, which included a digitized maneuver force. This experiment showed again the great power of our new family of systems combined with the efficacy of our new doctrine and our new organizational constructs.

Since those exercises, MI has continued to evolve, fielding more new systems, refining our doctrine in a number of real-world contingency operations (e.g., Somalia, Macedonia, Rwanda, Haiti, and now in Bosnia-Herzegovina), and bringing our new organizational designs on line creating a truly seamless architecture from the maneuver brigade through national agencies. Beyond that, we have decided to re-engineer our operational intelligence major

command (MACOM), the U.S. Army Intelligence and Security Command (INSCOM). We are reducing it by 37 percent by 1998 but retaining and, in fact, improving its great capabilities to support force projection operations by standing up new capabilities, like the Regional Signals Intelligence (SIGINT) Operations Centers (RSOCs).

Joint Venture Axis

Looking specifically at the Joint Venture or TOE axis of Force XXI, we are ensuring we equip the 4th ID (M) with all of our new division-level systems, including: the Joint STARS GSMs, ASAS, TROJAN SPIRIT, the Mobile Integrated Tactical Terminal, the Ground-Based Common Sensor, Advanced QUICKFIX, and a tactical unmanned aerial vehicle (UAV). The 4th ID (M) will also

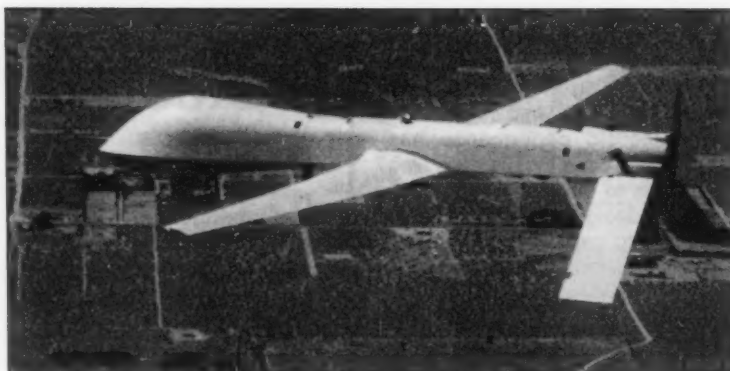
have connectivity to a full-range of corps and theater systems. The division has also organized into the new divisional MI battalion construct with an MI company in direct support of the EXFOR brigade task force which will go through the first major AWE in February 1997 at the NTC. That company will provide the brigade an analysis and control team with an expanded analytical capability. The expanded capability derives from ASAS and the Joint STARS GSM. The GSM can display—

- ☐ SIGINT from an Integrated Commander's Tactical Terminal.
- ☐ Live video from a tactical UAV Ground Control Station also located at the brigade.
- ☐ Real-time Joint STARS data from the moving target indicator and the synthetic aperture radar.

The EXFOR brigade and division will have the most capable MI support ever fielded and, if two preliminary AWEs are any indication, that support will make a significant and very positive difference. The 1995 AWEs FOCUS DISPATCH and WARRIOR FOCUS conducted in Kentucky and at the Joint Readiness Training Center (JRTC), respectively, clearly demonstrated the value added of our new systems, doctrine, and organizational designs. They provide commanders with a shared situational awareness, rapid and accurate targeting, and the ability to see their battlefields better than ever before.

Thus we go into the Joint Venture axis of Force XXI with great confidence that our baseline organization, the new divisional MI battalion, is "about right," our systems are leading-edge information age technology, and our doctrine is proven and solid. We also know the leadership of the 4th ID (M), including the commanding general and MI leaders, understand how to optimize the employment of these capabilities.

While we are very confident that MI will play a major, positive



U.S. Army photo

Predator Medium-Altitude Endurance Unmanned Aerial Vehicle.

role in the EXFOR AWEs, we also have another responsibility: to identify any vulnerabilities a digitized Force XXI may have. To this end we are working with the Director of Information Systems, Command, Control, Communications and Computers (DISC⁴) from the Army Secretariat; the Army Digitization Office; the Department of the Army Deputy Chief of Staff for Operations; INSCOM; and the Army Communications and Electronics Command. We will conduct a Red Team assessment to identify potential vulnerabilities and develop affordable and practical counters to them. This is a top priority for the Chief of Staff, Army (CSA), and one we will conduct in conjunction with Joint Venture AWEs on a not-to-interfere basis.

Impacts on MI

The possible results of the TDA and institutional Army vector are not as clear. While we have reengineered INSCOM and made it 37 percent smaller, and reduced the size of the Office of the Deputy Chief of Staff for Intelligence (ODCSINT) significantly, both stand to change even more in the Force XXI process. The CSA wants to reduce the number of MACOMs and the size of the Army staff significantly. A series of functional area assessments are reviewing MACOMs, and we have briefed the Vice CSA on command and control options for INSCOM. Some of those options will change its status as a major

command but it is our intention to try to keep INSCOM intact as an operational command regardless of whether it retains its status as a MACOM.

If the Army further reduces the size of ODCSINT in this process, we will have to divest functions—we can no longer do more with less. We are now in the process of attempting to identify functions to divest.

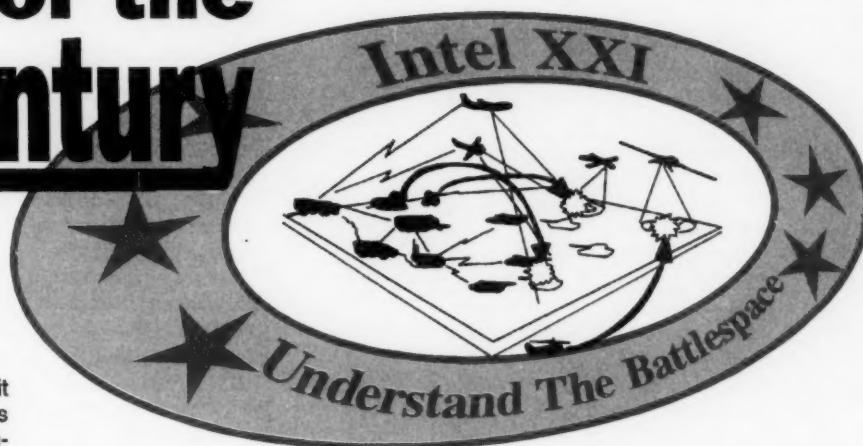
Outlook

The Force XXI process is active and ongoing. Again, it is a journey, not a destination. We will continue to redesign the Army in a series of rolling baselines as we inject new technology and new operational and organizational constructs to optimize the capabilities it provides. MI is well positioned to lead Force XXI to the 21st century, as it should be. However, we too will change. It is imperative that each of us participates actively in this process to ensure MI continues to have the ability to provide responsive support to commanders and remains **Always Out Front**.

Lieutenant General Menoher is currently the U.S. Army Deputy Chief of Staff for Intelligence (DCSINT). He served as the Commander, U.S. Army Intelligence Center and Fort Huachuca, Fort Huachuca, Arizona, from 1989 through 1993 and was Commander, INSCOM, from 1993 to 1994. Readers who wish more information may contact the DCSINT Initiatives Group at (703) 695-2968, DSN 225-2968, or E-mail odcsint@access.digex.net.

The Military Intelligence Vision for the XXI Century

by Major General Charles W. Thomas with Captain Cary C. Harbaugh



The 21st century brings with it new challenges and changes in the nature of warfare that precipitate a shift in how we do business in military intelligence (MI). It is our charter as the MI proponent of the Training and Doctrine Command (TRADOC) to prepare for the future and develop systems, train personnel, and define the direction that MI must take to answer future battle requirements. In the field, the Intelligence and Security Command (INSCOM) units, corps MI brigades, divisional MI battalions, and others provide input to the process. The result is the MI vision. The vision becomes the focus for the future, and though it is the product of a thorough process, it is dynamic and therefore ever-changing. As with any process in the Army, we developed a mission (vision) statement to grasp the Army leadership's intent and from that blossomed the concepts behind it. The vision statement for Intelligence XXI reads:

To provide the Ground Component Commander, in a Joint environment, with a knowledge based, prediction oriented Intelligence system, supporting the commander driven requirements of an information age Power Projection Army (Force XXI) capable of land force dominance across the continuum of 21st Century

military operations. At the center of this vision are quality soldiers, leaders, and civilians—soldiers, leaders, and civilians whose potential is more closely realized by Information Technology assisting in the collection, production and the presentation of Intelligence, providing the Commander with an understanding of the battlefield, or environment of military operations, and the ability to dominate information.

We should look at this statement from a pyramid perspective. Figure 1 displays this pyramid graphically.

- On the base is the axiom that "commanders drive intelligence." That is, they define requirements. This has almost become a cliché, but it is an essential tenet of our business. Commanders must be responsible for making clear what they need to know about the enemy to defeat him. It is the commander's plan that intelligence rallies around to get key information at the right time for the commander to make the decisions necessary to win battles.

- Collection, the next tier in the pyramid, is the process whereby we try to get information to answer questions. This is where we bring to bear systems that provide required timely information. Systems ranging from national to tactical focus on places, units, communications, and people to gather information based on the queries we provide.
- The next level of the pyramid is production of intelligence. Here we process collected information and turn it into intelligence through analysis.
- This leads to the next step which is understanding. Intelli-



Figure 1. The Intelligence XXI Pyramid.

gence must be provided in the context of the commander's requirements to be fully understood and usable—or to decrease uncertainty.

- However, the manner in which we present intelligence frequently contributes the most to efficient understanding. Presentation thus sits at the pyramid pinnacle.

We have come a long way in how we present intelligence. Today, with greater access to efficient automation tools, we are capable of putting together clear, easily digested presentations that capture what the commander needs to know. This has not always been true. For years, S2s and G2s briefed the intelligence estimate in long form while standing in front of a series of acetate overlays with pointer in hand. The method was cumbersome and often left commanders without real understanding. It is key to success on the 21st century battlefield that our presentations be something that commanders can rapidly assimilate, and that influences the decisions they make.

Genesis of the Vision

The guiding doctrine behind the Intel XXI vision is **TRADOC Pamphlet 525-5, Force XXI Operations**. This document is the doctrinal articulation of the Chief of Staff of the Army's vision for the 21st century force. This guidance, coupled with the Army's Modernization Objectives, served as the basis for a series of MI conferences that included members of academia, industry, and senior intelligence experts. Their input was forwarded to the Army's MI commanders in last year's Worldwide Intelligence Conference. The results of this effort, combined with major command and field input, produced an Experimentation Plan that the Army is using as the test bed for new concepts and systems. Also, the Army Deputy Chief of Staff for Intelligence (DCSINT), INSCOM, and the Intelligence Center published a combined publication (In-

tel XXI) to promote the vision and provide the needed focus to the Army Intelligence Master Plan (AIMP). The AIMP along with experiments, demonstrations and exercises serves as the implementation vehicle for the intelligence vision.

Force XXI Requirements

TRADOC Pamphlet 525-5 identifies five fundamental requirements for Force XXI: battle command, extended battlespace dominance, information dominance, force projection, and operational flexibility. Let me address the MI vision through the lens of these requirements.

Battle Command. Operational requirements for effective battle command are focused on the need to visualize the battlefield. Combatant commanders want to closely track forces, both enemy and friendly, and understand the environment. Further, they are looking for a way to assimilate information, especially with the extreme amounts received, in efficient ways that contribute to anticipating enemy actions. The tools the intelligence community provides help here. We can produce estimates, be predictive, and develop usable courses of action (COAs) with greater efficiency than ever before.

The intelligence part of battle command has several key elements. The first is the need for real-time access to collected information and collection systems. The speed of the 21st century battlefield demands that our analysis be faster. That can only happen with timely passing of collected information to the analyst or analysis system followed by near-simultaneous forwarding of processed intelligence to the battlefield commander. The second element is a need for predictive analysis. This requires a combination of smart human experts (accomplished by well-trained intelligence officers, noncommissioned officers, and soldiers) and the use of automated analytical tools. Finally, shared situational

awareness is critical to solid battle command. Seeing the battlespace in a holistic sense—a common picture horizontally and vertically presented—with expert interpretation of this picture is critical.

Our ultimate goal is the production of a wargaming, mission planning, and rehearsal tool. Through this tool the commander could run COAs available to him against known enemy dispositions and order of battle that is dynamically updated as he works. Intelligence sensors would continue to feed this system, updating the intelligence picture and concurrently, the rehearsal tool. Commanders, staff, and subordinate leaders could rehearse each phase of an operation so that it becomes battle drill. The results of this comparative COA process allow leaders to select the best possible course—the one with the greatest opportunity for success.

Extended Battlespace Dominance. The next requirement of Force XXI relates to the need to dominate more of the battlespace. The complexity and speed of future combat calls for looking deeper and broader. As well, the synchronization of forces in operations that are often joint, multinational, or interagency, and the orchestration of that effort demands the extension of our knowledge of the battlespace. This effort will provide support to command and control (C²), targeting, maneuver control, and information operations systems. But the challenge will be the ability to pass the information necessary to meet the demand. It will literally require bandwidth on demand to pass often immense amounts of information. The broadcast of information must be focused at tactical force levels for it to be of real use in warfighting. A wireless local area network (LAN) is expected to provide the connectivity that will make this work. To fully sense the battlefield environment, an automated collection management tool will di-

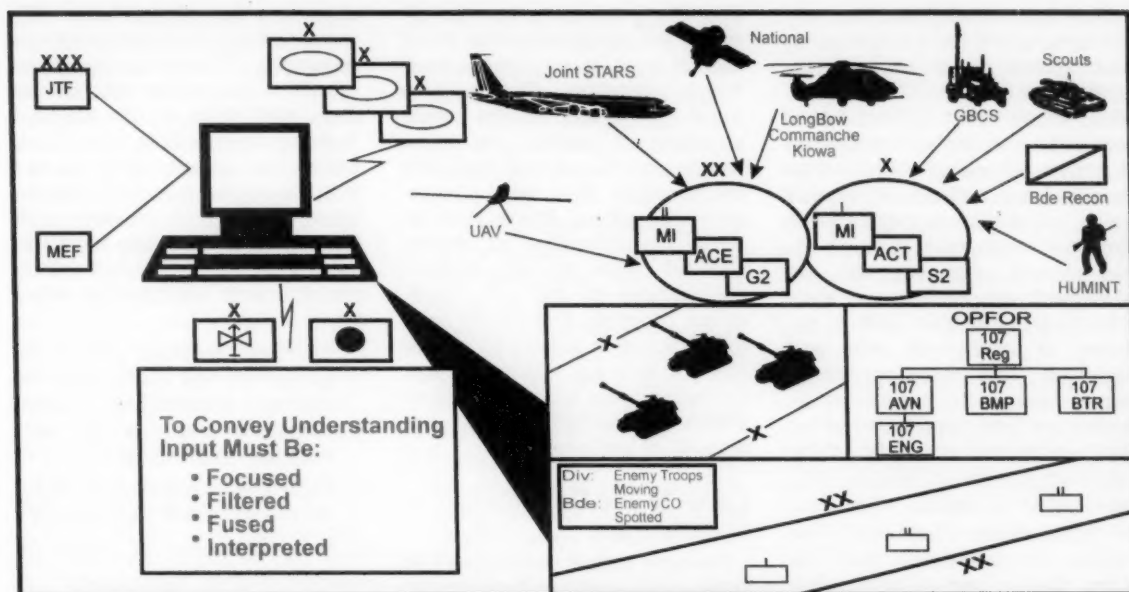


Figure 2. Achieving Information Dominance.

rect and integrate sensors to continuously update and maintain clear situational awareness.

Information Dominance. Information, and its control, is essential to success in future military operations. Access to information has not only been enhanced for us by the amazing automation we have today, but for potential enemies as well. Information dominance is a condition where we know more about the battlespace than the enemy does. It is not a permanent condition, and can be lost easily. Therefore, to be successful we must regulate the information we require and deny the enemy the information he needs. We must be able to horizontally and vertically integrate information we acquire to put it to the best use. The correlation of information will produce a clearer visualization of the battlefield and put more science and less art into decisionmaking.

Information dominance will likely be of brief duration against a foe who has access to modern technology. The global information environment is accessible to all and presents unique challenges previously unseen in warfare. Battlefield intelligence is one

piece of that environment but is the vital element in successful C² warfare (C²W). C²W has three primary parts:

- The first, C² Exploit or intelligence, requires a thorough intelligence preparation of the battlefield (IPB) of information systems available to the enemy. High-value C² targets are identified to focus our effort. Using our understanding of the threat's information systems and our own knowledge-based tools, we prepare plans to either manipulate or attack the enemy's information infrastructure.
- The second element of C²W, C² Attack, brings to bear the arsenal of fires (lethal and nonlethal) aimed at crippling the enemy's ability to exercise C² of his forces. The focus of the attack is typically the critical nodes that we identified during C² Exploit. Attacks must be carefully coordinated so that they are synchronized with the operational plan to mass desired effects at the appropriate time and place to maximize the impact on the enemy's ability to fight. The goal is to create a condition

where our information dominance is as long as possible, and certainly as long as desired.

- C² Protect, the last element of information dominance, is related to identifying the threat to our own C². We want to understand our vulnerabilities, the enemy's capabilities, and when he plans to attack, in order to develop the best countermeasures to ensure our C² stays intact. The ability to achieve, maintain, or regain information dominance is contingent on our capability to protect the systems and networks that provide our C².

Force Projection. It is apparent, at least if you have been in the Army for the last five years, that our army has become more based in the continental United States (CONUS-based) than ever before. With that comes the challenge of having to project large numbers of forces into a given environment in rapid fashion. The need for intelligence is greater in these instances and the projection of intelligence forces is as important as the need for combat forces. Communications must be better integrated to allow for

efficient processing and planning. Databases will have to be rapidly constructed and will rely on updating via long-haul communications from the CONUS-based support. A variety of intelligence systems accessing various databases from national to tactical level, will focus on requirements from predeployment through redeployment. Consequently, we designed an intelligence force structure to promote tactical tailoring of intelligence units and functions. This allows commanders to package the intelligence architecture they require in theater, and rely on the remainder of the structure to provide support from sanctuary in CONUS.

Operational Flexibility. The nature of operations that the Army plays a part in today mandates a flexible doctrine for use of forces. Units deploy to situations that cross the spectrum of conflict. Command relationships in joint, multinational, and inter-agency operations are complex and demand an intelligence architecture that can provide necessary support in the face of ambiguous threats. A more non-traditional environment corre-

spondingly brings a greater demand for intelligence. We in MI can be ready to meet these challenges head-on. Our soldiers must be trained for the whole spectrum of conflict and know how to work closely with their joint counterparts. The land component operational focus and in-depth understanding of enemy order of battle are Army-specific contributions to any joint intelligence process. The overall joint force picture is enhanced by our ability to leverage information age technology and access the capabilities of counterparts and national-level resources.

Links to the Battlefield Commander

Our next step in completing the vision, after working through the components for intelligence in Force XXI, was to take the lessons learned from recent military operations (Panama, Operation DESERT STORM, Haiti, Somalia, Rwanda, Bosnia) and current doctrine (FM 34-1, **Intelligence and Electronic Warfare Operations** and more) and do a correlation with fundamental operational requirements. This produced the

objectives for Task Force (TF) XXI which will be the test bed for evaluating Force XXI concepts. TF XXI's first major test will be early next year at the National Training Center. This experiment will be the azimuth check for further development and experimentation growing in echelon until Corps XXI is ultimately tested in fiscal year 1998. The four principle objectives we have identified for TF XXI are—

- ☐ Common relevant picture (a subset of the Force XXI required components battle command and extended battlespace dominance).
- ☐ Horizontal integration (a subset of information dominance).
- ☐ Pull intelligence (a subset of force projection).
- ☐ Top down and bottom up access to intelligence (a subset of force projection).

These capabilities or competencies are essential to the future of TF XXI. The common relevant picture provides the clarity, situational awareness, and grasp of the battlespace to allow the commander to shape it as he needs. Horizontal integration of informa-

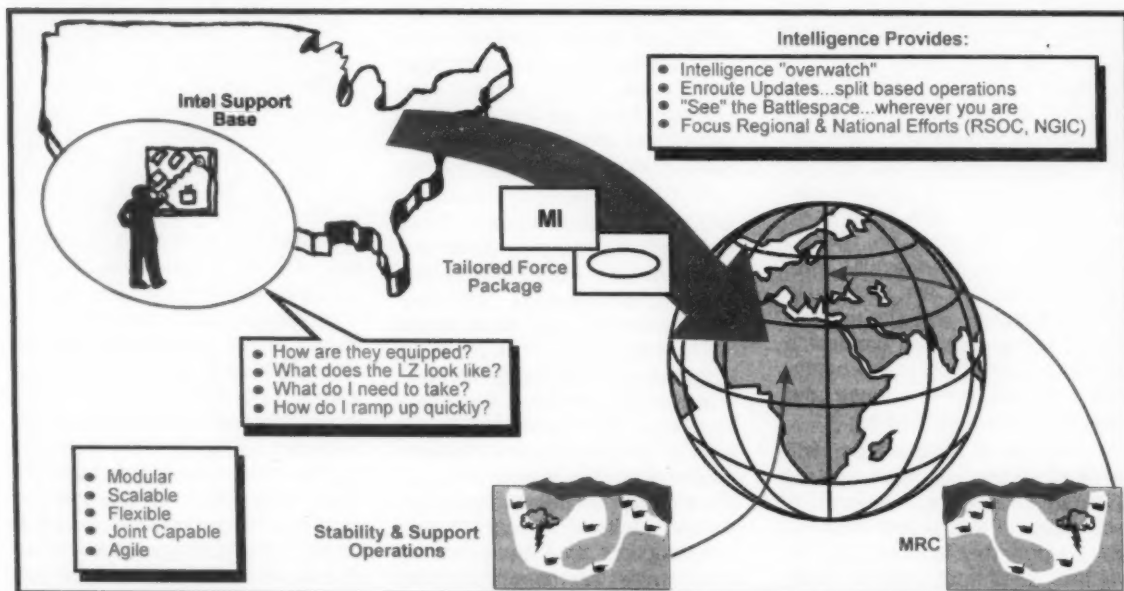


Figure 3. Intelligence "overwatch" serves the Commander during Force Projection.

The EXFOR: Intelligence in Force XXI

by Lieutenant Colonel John R. Brooks and Lieutenant Colonel Steven L. Campbell

"You cannot get to the future by walking backwards out of the past."

— anonymous

The Force XXI experiment is about realizing the future sooner. It is about learning and growing as an institution; it is about pushing the envelope. The Louisiana Maneuver Task Force World Wide Web Home page discusses the need for a Force XXI effort as follows:

A smaller version of the Cold War Army—the victorious Army of the Cold War and Operation DESERT STORM—will not answer America's expanding national security needs. A new, better Army is needed to meet the challenges of the 21st century. To maintain the Army's qualitative edge over potential adversaries, the Army is making fundamental changes in doctrine, organization, and training.

Journey to Force XXI

The Training and Doctrine Command (TRADOC) Pamphlet 525-5, **Force XXI Operations**, contains the design principles of the experiment. This document captures the essence of the vision. Generals Fredrick Franks and Gordon Sullivan expressed to the TRADOC and Army communities after Operation DESERT STORM:

- ☐ The vision of an expanded battlespace and an organization that can physically disperse on the battlefield yet mass its combat power.
- ☐ An organization capable of force protection throughout an

operation by seeing the enemy and seeing itself.

- ☐ An organization with the ability to shape and control the tempo of the battlefield, setting the conditions for decisive operations.
- ☐ A force enabled with tomorrow's technology.

This journey to Force XXI began after Operation DESERT STORM. The Army and the world were different, yet the Army had not significantly changed. We were more lethal but how much better were we? How much more lethal and survivable can we be? How far could we go?

Small experiments began at many places, such as Fort Knox, Kentucky, with the digital squad and then at Fort Hood, Texas, with a platoon-size experimental element. Meanwhile, military intelligence (MI) was examining itself with the MI Relook and Operation DESERT CAPTURE I. Other battlefield operating systems (BOS) were doing the same self-examination. At the National Training Center (NTC) in April 1994, many BOSs came together for the first time. NTC rotation 94-07 with Operations DESERT HAMMER VI and DESERT CAPTURE II was a landmark in large-scale and horizontal experimentation. In the spirit of the original Louisiana Maneuvers, the Army deployed soldiers in a realistic combat environment for detailed examination of concepts and systems. Many successes and failures and much debate on the results followed. Yet the overarching outcome was that the Army could experiment and train, that the potential of the technology was significant, and that horizontal integration was very important. A significant finding was that we

must continue our experiments to propel us into the future.

The Birth of the EXFOR

The experiments will employ an Army testbed experimental force (EXFOR). In December 1994, the Chief of Staff of the Army (CSA) designated the 2nd Armored Division as the Army's EXFOR. In December 1995, the Division reflagged as the 4th Infantry Division (Mechanized) (4th ID (M)) and added a third brigade. It also began the process of transitioning to the EXFOR mission. Figure 1 depicts the EXFOR's near-term evolution (see the glossary on page 18 for the expansion of the acronyms used in this article).



Bradley M2/M3 Infantry Fighting Vehicle.

U.S. Army photo

The 4th ID (M) has a very broad, complex mission:

- ☐ Prepare for and conduct large-scale experimentation to enable increased survivability, lethality, tempo, and sustainability; develop tailorable organizations with enhanced deployability, and joint and combined links increasing the versatility of Force XXI.
- ☐ Maintain combat readiness.

- On order, deploy and conduct operational missions.

Two large-scale experiments have been programmed to look at the division structure, Task Force XXI at NTC 97-05 and a Battle Command Training Program (BCTP)-like exercise in November 1997. The experiments now include approximately 76 prototype systems, 43 fieldings and 20 concepts, all designed to allow a glimpse of the future.

Experiment for the future and maintain readiness: these two missions often conflict in priority. Balance has become the watchword in the EXFOR.

Life in the EXFOR

The 4th ID (M) is not a pure laboratory. The last two bullets in the mission statement dictate this. We still do all the things required of other Army combat units. We still have scheduled company and team lanes, gunnery, NTC rotations (five during the next 18 months), BCTPs, and so forth. The readiness of the division is still a priority. We always examine potential experiments closely to determine if they conflict with the immediate and future warfighting ability of the unit. If it is important enough, the experiment will take place, as long as it does not seriously compromise the mission of the Division.

People are our most important resource. Therefore, we continually assess the impact of these experiments on the soldiers in the Division and encourage their professional development. Soldiers still attend schools and leadership positions still change. When all the gadgets leave, the soldiers will remain. Soldiers that participate in these exercises will be very valuable to the Army's future. We must ensure they remain competitive in their career fields.

The Path to Force XXI: Through the ECC

The 4th ID (M) is not alone in this process; the entire Army is supporting this effort (see Figure

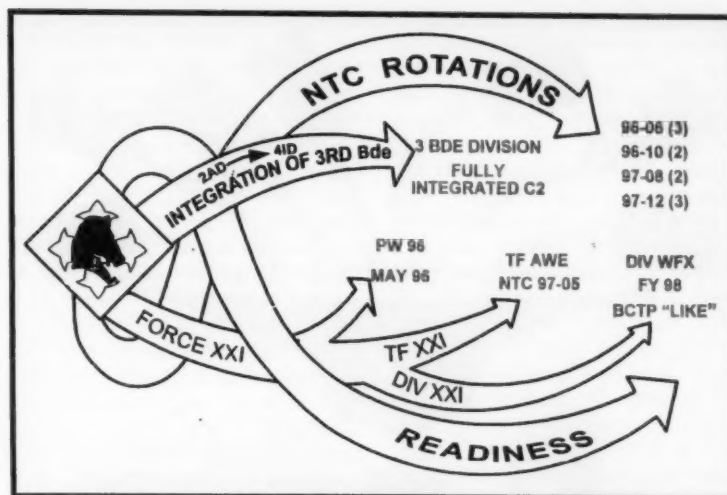


Figure 1. The Near-Term Evolution of the EXFOR.

2). TRADOC (Fort Huachuca) is working the tactics, techniques and procedures (TTP), the modified tables of organization and equipment, and the experimental designs. The Army Materiel Command (AMC) is supplying the material and systems. The U.S. Forces Command (FORSCOM) supplies the work force and the Army Digitization Office (ADO) supports the effort with automation. Headquarters, Department of the Army (DA) provides the guidance while the Operational Test and Evaluation Command (OPTEC) furnishes evaluations and testing.

An organization known as the "EXFOR Coordination Center" (ECC) filters all this help. The ECC, totally integrated into the Division, deals with problems, enforces the "good idea" cut-off dates, and tracks deliverables to the Division. Our path to Force XXI is through the ECC!

The ECC has representatives from all the BOSs and major Army organizations involved in the process. The representative for MI is Captain Mike LaChance.

Enabling Task Force XXI

Task Force XXI is actually 1st Brigade, the Raider Brigade. The Army will add roughly twelve hundred computers to the brigade structure. Virtually every vehicle

or dismounted soldier will have a computer connected to the "tactical internet." The number of moving parts is mind-boggling. The Appliqué software ties the BOSs together from the OH-58D to the M1 Abrams tank. In MI, the change is in both force structure and technology. The structural change includes the general support (GS) and direct support (DS) MI companies. The enabling technologies of the unmanned aerial vehicle (UAV), Joint Surveillance and Target Attack Radar System (Joint STARS) Enhanced Ground Station Module (GSM), and All-Source Analysis System (ASAS) will be available down to battalion level. The most significant impacts will be the ability to get the bottom-up feeds from the Appliqué and the ability to disseminate intelligence over the tactical internet, literally down to the individual tank. We do not currently understand all the implications surrounding this ability to move information at will. This capability will exist in the future; we must understand it as soon as possible. This is the essence of Force XXI.

TF XXI is using the TRADOC doctrine, training, leaders, organizations, materiel and soldiers (DTLOMS) model to examine all aspects of the AWE experiments. DTLOMS is a systematic approach to examining an issue. TF

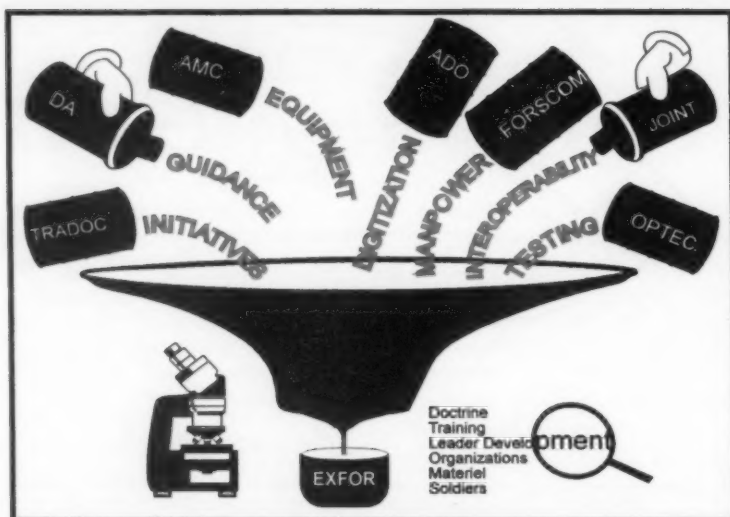


Figure 2. The EXFOR Process.

XXI is examining and recording in detail the impact on DTLOMS. Issues like the relationship of the analysis and control team (ACT) to the brigade S2, the size of the ACT and the brigade S2 organizations, the DS and GS company relationship, the type and length of training required, and the man-machine interface in ASAS are but a few of the many aspects we are questioning. There are many more questions than answers at this point.

We are exporting our lessons learned to the "big" Army in real time. We are sending our TTP for ASAS operations and for the Maneuver Control System/Phoenix (MCS/P) to the U.N. International Force (IFOR) in Bosnia. The contractors who are supporting Operation JOINT ENDEAVOR are actually training with the EXFOR. The next baselines are incorporating changes to the MCS/P beta version and ASAS.

Changes Leading to Division XXI

At the time of this writing, a Division XXI structure is close to completion. The interim design is between 15,000 and 16,000 soldiers. It has—

- Two mechanized brigades with a headquarters and head-

quarters company (HHC), a brigade reconnaissance company, two mechanized battalions, and an armor battalion.

- One armor brigade with an HHC, two armor battalions, a mechanized battalion and a brigade reconnaissance company.
- A division artillery (DIVARTY) brigade with a headquarters and headquarters battery, three DS battalions, a GS Multiple-Launch Rocket System, and a target acquisition battery.
- An aviation brigade with an HHC, one attack battalion, and one GS battalion.
- An engineer group consisting of two engineer battalions.
- A division support command (DISCOM) with an HHC or Materiel Management Center (MMC), one division support battalion, and three forward support battalions.
- A cavalry squadron, an MI battalion, a signal battalion, and an air defense artillery (ADA) battalion.
- The division HHC, a military police company, and the band will continue to exist.

Among the changes is a new element—the DISCOM now has a computer maintenance section.

The command and control (C²) structure is also different. The results of the Leavenworth Prairie Warrior experiments provided the starting point for the redesign. The new design is not nearly as radical as the Leavenworth experience. As of late March 1996, the Division will have a main command post (CP), a tactical command post and a command group, but no rear CP. Additionally, following the MI battalion lead, multiple major support command's (MSC) headquarters have condensed in the various division headquarters. These include the ADA battalion and signal, MI, aviation, and engineer elements. This design will help eliminate duplication of effort and shorten decision cycles. Conducting multiple simulation-driven experiments will aid in examining and refining the C² structure. We learn a little more every time we conduct an exercise.

Outriders—Out Front

The 104th MI Battalion, the "Outriders," provides intelligence support to TF XXI (see Figure 3). The 104th has begun its transformation into the MI battalion of the 21st century. This transmutation began with the battalion's transitioning into the December 1995 "A-Series" Modified Table of Organization and Equipment (the MTOE) in early September. We completed this transition early to ensure that the structure was in place during the 2d Brigade's exercise evaluations and to work out the bugs before the January 1996 division warfighter exercise.

One of the first decisions made after implementing the new MTOE was to integrate the MI battalion tactical operations center into the division main command post (DMAIN) and form an intelligence operations center. The EXFOR decided to have an integrated intelligence operations center, combining G2 operations and the MI battalion operations element because it would result in better synchronized intelligence support. The functions of G2 op-

erations and the MI battalion have not changed, just the location. This integration has allowed the battalion to better command and control the intelligence assets in the division. The G2 is responsible for planning and coordinating assets based on guidance from the commanding general, while the MI battalion commander "fights" the battalion. Location at DMAIN reduces the planning cycle, facilitates deconfliction, and reduces the response time. The MI battalion commander is also a key player in deep operations. During the execution of an operation, DIVARTY, aviation, and MI commanders are in the deep cell. This significantly enhances the precise execution required in deep operations. Locating in the DMAIN has paid big dividends in the synchronization of division-level intelligence support. As the division transitions to the Division XXI configuration, the location of the MI Battalion command function will be with the tactical command post. The bottom line—less talk, quicker execution.

The Appliqué will further enhance our situational awareness. We will now know as much about our own assets as we do about the enemy. There will no longer be a requirement to get radio updates on a system's location because you will already have the information. The GS and DS companies also raise many questions that we will address as we work with Fort Huachuca to develop the TTP. The role of the GS company has expanded considerably with the advanced capabilities of the Ground-Based Common Sensor-Heavy/Light (GBCS-H/L) and UAVs. How does the company commander command and control assets which are deployed on the front line, while simultaneously planning and conducting launch and recovery missions in support of UAVs? That is a question we must answer. We will also be working with the aviation brigade, as the GBCS-H/L and the Advanced QUICKFIX TTP develop.

One lesson learned is that the DS company's analysis and control team must be the single focal point for all intelligence operations in a brigade's area of operations (AO). Whether it is a GBCS-H/L or UAV, the ACT has responsibility for the coordination. The ACT's situational awareness of the brigade AO ensures that they defuse or troubleshoot prior to development of problems. The ACT also coordinates with the brigade for security and support of MI battalion assets. The ACT has become an integral part of brigade operations. With the Common Ground Station Prototype, the ASAS Remote Workstation (ASAS-RWS), the UAV Ground Control Station, and the connectivity with GS company assets, the ACT provides the brigades with a capability only now being realized. One point is already evident: brigade commanders want the ACT and its enhanced capabilities.

As stated earlier, the MI battalion is responsible for intelligence operations. To support the G2, the analysis and control element (ACE) has been designated a "de facto company." The ACE detachment then gets a DS mission in support of the G2. This reduces the confusion normally associated

with the question of who controls the ACE. We treat the ACE the same as the other DS companies and the rating scheme is within the MI battalion. The mission is the same for all the DS companies: train as one organization (whether it is with a brigade or the G2) and provide effective intelligence support. The bottom line for MI—the doctrine and concepts are about right. New systems can increase the capability for wide-area surveillance, both airborne and on the ground; increased targeting accuracy and target hand-off; the ability to see over the next hill; and probably most important, the ability to disseminate to a very low level.

No Magic, Physics Laws Still Apply

We are relearning one lesson. At least for the immediate future, one cannot command intelligence to happen. The fundamentals are still mandatory, and the planning process is important. As Albert Einstein said, "You cannot make anything any simpler than it is!" Intelligence is still hard work. The intelligence preparation of the battlefield (IPB) process is still very time-consuming, and tedious work. Digitization is helping to keep the products up to date. We

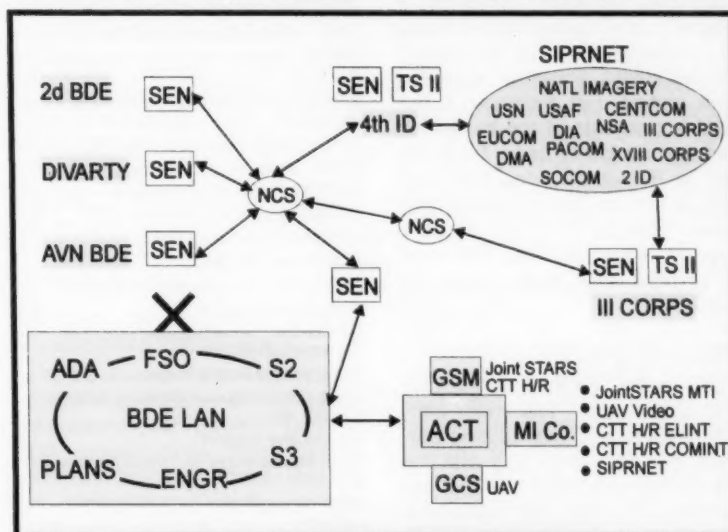


Figure 3. TF XXI Intelligence Support.

must wargame and develop the collection plan. Formalized intelligence and information requirements (such as the commander's critical information requirements, priority intelligence requirements, high-value and high-payoff targets, and information requirements) are still very much alive. The analyst is still the most important part of the process: much more important than the machine. This is yet another example of the machine serving the individual.

Other BOSs are learning from the intelligence BOS. We have had ASAS for a few years. We have learned how to train with it and that more information may mean more confusion if it is not properly focused. Based on our insights, a new type of wargame is emerging—the information wargame. We must have a detailed examination of what needs to move when and where. This wargame produces an information synchronization matrix, an element critical to information operations. Conducting TTP is much harder than moving digits around. We are seeing a lot of early success, but it continues to be hard. You cross one phase line at a time.

By the way, you can have a dozen horizontally integrated computer systems working a problem, but if you require focus of a collector on a specific part of the battlefield, you must normally plan ahead. For instance, if the UAV is one side of the battlefield and you suddenly need it collecting on the other side, it flies at 100 knots an hour until it gets there. That is, if it has enough time on left on station. The laws of physics still apply, even to Force XXI.

Balancing Act

Life in the EXFOR is exciting and challenging. The most difficult challenge is maintaining balance. We deal every day with the competing readiness versus experimentation, the high operating tempo versus soldier quality-of-life, and the experimentation

schedule versus soldier professional development. The most limited resource, of course, is time—there is never enough. The EXFOR's most important resource is its people. One result of the experiment is already emerging; one that could have been predicted. The U.S. Army will continue to lead the way with today's high quality soldiers, now enabled with tomorrow's technology!

Glossary

ACE: analysis and control element
ACT: analysis and control team
AD: armored division
ADA: air defense artillery
ADO: Army Digitization Office
AMC: Army Materiel Command
AO: area of operations
AQF: Advanced QUICKFIX
ASAS: All-Source Analysis System
AVN: aviation
AWE: Advanced Warfighting Experiment
BCTP: Battle Command Training Program
BOS: battlefield operating system
C²: command and control
CCIR: commander's critical information requirements
CECOM: Communication and Electronics Command
CENTCOM: U.S. Central Command
COMINT: communications intelligence
CP: command post
CSA: Chief of Staff of the Army
CTT H/R: Commander's Tactical Terminal Hybrid/Receive Only
DIA: Defense Intelligence Agency
DISCOM: division support command
DIVARTY: division artillery
DMA: Defense Mapping Agency
DMAIN: division main (command post)
DS: direct support
DTLOMS: doctrine, training, leaders, organizations, materiel, and soldiers
ECC: EXFOR Coordination Center
ELINT: electronic intelligence
EUCOM: European Command
ExEval: Exercise Evaluation
EXFOR: Experimental Force
FC: Forces Command
FORSCom: U.S. Forces Command
FSO: fire support officer
GBCS-H/L: Ground-Based Common Sensor-Heavy/Light
GCS: ground control station
GSM: Ground Station Module (Joint STARS, etc.)
GS: general support
HQB: headquarters and headquarters battery
HHC: headquarters and headquarters company
HQDA: Headquarters, Department of the Army

HPT: high-payoff target
HVT: high-value target
IFOR: International Force (in Bosnia)
IPB: intelligence preparation of the battlefield
IR: information requirements
Joint STARS: Joint Surveillance Target Attack Radar System
LAN: local area network
LGSM: Light Ground Station Module (Joint STARS, etc.)
MCS/P: Maneuver Control System /Phoenix
MMC: Materiel Management Center
MP: military police
MSC: Major Support Commands
MTI: moving target indicator
MTOE: modified table of organization and equipment
NCS: network control station
NSA: National Security Agency
NTC: National Training Center
O/O: on order
OPTEC: Operational Test and Evaluation Command
OPTEMPO: operational tempo
PACOM: U.S. Pacific Command
PIR: priority intelligence requirements
PW: Prairie Warrior (experiments)
SEN: Short Extension Node (on MSE)
SIPIRNET: SECRET Internet Protocol Router Network
SOCOM: Special Operations Command
TF XXI: Task Force XXI
TOC: tactical operations center
TRADOC: Training and Doctrine Command
TS II: TROJAN SPIRIT II
TTP: tactics, techniques, and procedures
UAV: unmanned aerial vehicle
WFX: Warfighter Exercise

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by Captain Erasmo A. Martinez

Division XXI will possess the most powerful and lethal capabilities the world has ever known. Commanders of the future will be able to call on the capabilities of weapons systems like the Comanche and Apache Longbow attack helicopters, the M1A2 main battle tank, and the Army Tactical Missile System and PALLADIN artillery systems. They will be able to better visualize the battlespace with systems such as the All-Source Analysis System (ASAS) for intelligence fusion, the Phoenix maneuver control system, and the Appliqué battlefield visualization system. This article illustrates how the military intelligence (MI) battalion fits into Division XXI operations, and how the conduct of intelligence operations will support the Division XXI commander in achieving mission success.

Division XXI Operations Defined

According to the Training and Doctrine Command (TRADOC) Pamphlet 525-71, **Military Operations: Force XXI Division Operations Concept**, six patterns of operations characterize Division XXI operations. These are—

- ☐ Project the force.
- ☐ Protect the force.
- ☐ Gain information dominance.
- ☐ Shape the battlespace.
- ☐ Employ decisive attack.
- ☐ Sustain the force.

These operations are simultaneous, multidimensional, and nonlinear, conducted by a dispersed force integrated operationally and digitally to execute precise, decisive operations throughout the battlespace. The division must be able to conduct a variety of missions against a wide range of diverse and unpredictable threats, which may possess sophisticated and lethal capabilities. Division XXI will almost always conduct operations jointly and often in the context of a multinational force.

Division XXI Intelligence Operations

To mass the effects of these highly potent weapons systems and achieve decisive results, Division XXI commanders must have a number of capabilities. These include the ability to—

- ☐ See their battlespace in depth and multidimensionally.
- ☐ Precisely identify, locate and track the high-payoff targets (HPT).
- ☐ Produce and share both horizontally and vertically an accurate, relevant common picture that provides their force's situational awareness.
- ☐ Plan and synchronize command and control (C²) warfare (C²-W) and conduct electronic attack (EA) operations.
- ☐ Access, leverage, and interoperate with the echelons above division (EAD), joint, and multinational organizations, and capabilities.
- ☐ Protect their force through all phases of an operation, from predeployment to their return to the home station.
- ☐ Track friendly forces over a dispersed battlespace.

To be successful in terms of lethality, survivability, and tempo of operations (OPTEMPO), Division XXI organizations must gather, process, evaluate, share, and act on information (friendly, enemy, and environmental) more rapidly than ever before. This means

having the capability to achieve information dominance.

The Division XXI MI Battalion

The Division XXI MI Battalion has organized, equipped and trained to achieve information dominance and meet these demanding requirements (see Figure 1). It is a highly capable and responsive force with modernized systems and balanced capabilities tailorable to meet any contingency. It can provide the division with organic intelligence and electronic warfare support with direct support capabilities at the brigades. The MI battalion is also capable of interoperating with joint, multinational, and coalition assets. It is integrated vertically and horizontally across echelons from national level down to brigade. This means it can command, control, and employ specialized, reinforcing capabilities from EAD and joint organizations.

Patterns of Intelligence Operations

According to TRADOC Pamphlet 525-71, the Force XXI division will execute Force XXI operations through a deliberate pattern of operations. The patterns are neither phased nor sequential; they serve to focus the many tasks armies have always performed in war and other mili-

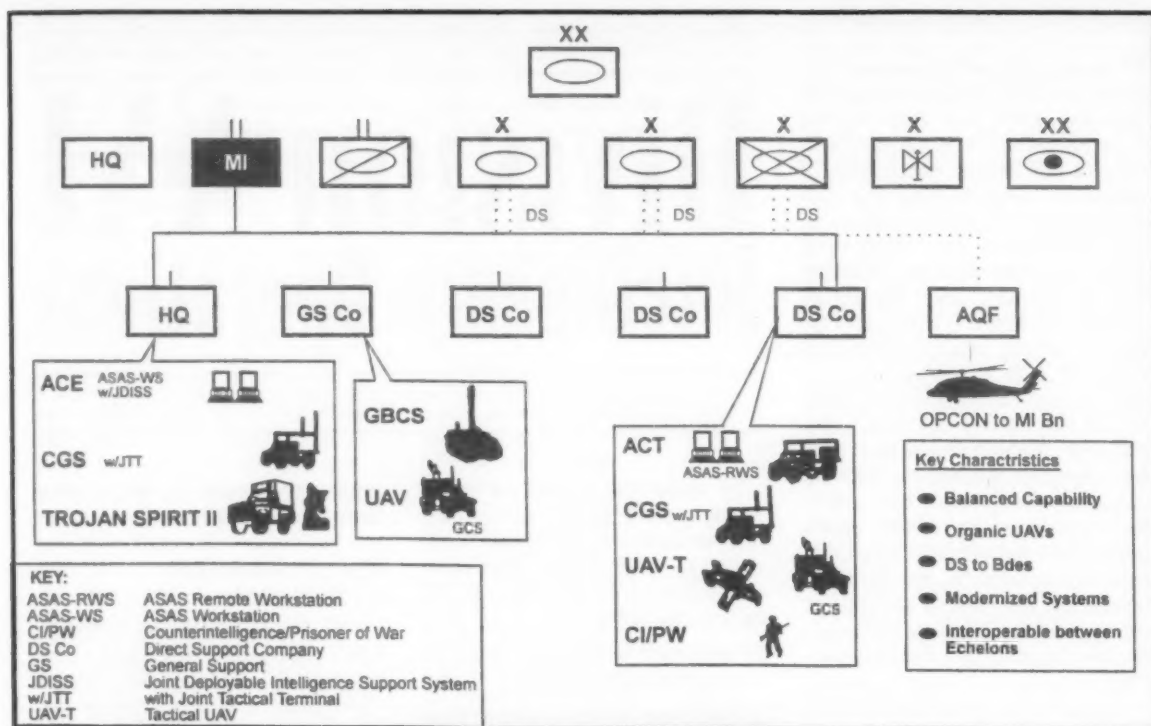


Figure 1. Division XXI Interim Design.

tary operations. To better illustrate the capabilities of the Division XXI MI battalion, the following is a description of how the battalion conducts Division XXI intelligence operations in the context of the six patterns of operations.

Project the Force. In preparation for deployment, Division XXI commanders must be able to quickly plan, wargame, and rehearse operations. They must be able to rapidly tailor and project their forces for joint, integrated operations. While enroute to a theater of operations, they must be able to receive, update, and maintain situational awareness. On arrival, the Division XXI early entry force must be able to protect itself and conduct decisive operations, with much of its resources provided in a split-based mode.

The MI battalion, in concert with the G2 intelligence team, provides the commander with the intelligence information he needs to tailor the division and determine the force flow. It also provides the

intelligence preparation of the battlefield (IPB) products needed to conduct effective mission planning, wargaming, and rehearsals prior to deployment and commitment. These functions are primarily performed by the battalion's analysis and control element (ACE) with its established links to EAD, joint, national, and in-theater operating resources.

Division XXI is vulnerable to attack at every echelon during all phases of operations

The battalion is also capable of providing tailored intelligence force packages with the ability to command, control, train, and integrate augmentation capabilities from outside the division along with its own organic resources. These organic resources include the All-Source Analysis System (ASAS), Common Ground Station (CGS), unmanned aerial vehicles

(UAVs), and the TROJAN Special Purpose Integrated Remote Intelligence Terminal (SPIRIT) II. Organic capabilities, reinforced by specialized teams from echelons above the division, provide the early entry force commanders with situational awareness, targeting, force protection, and long-haul, reach-back communications capabilities with access to in-theater joint assets.

Finally, by design, the battalion supports split-based operations by establishing an intelligence support base or sanctuary command post in conjunction with the intelligence infrastructure of the continental United States force projection platform or installation. This permits continuous intelligence support to the deploying, early entry force.

Protect the Force. Division XXI is vulnerable to attack at every echelon during all phases of operations, from predeployment to their return home. To achieve decisive results, maintain a high OPTEMPO, and minimize casual-

ties, Division XXI commanders must protect their forces, critical assets, and essential information. To do so, they must first understand the adversary's capabilities, particularly their reconnaissance, intelligence, surveillance, and target acquisition (RISTA), in relation to their own vulnerabilities. They must determine what forces, assets, and information require protection and then plan and execute appropriate force protection, counter-RISTA operations. This includes the dispersed positioning of forces for simultaneous, nonlinear attack. The division's ability to operate while dispersed over extended distances is made possible, in large part, by the capabilities of the MI battalion and G2 to support situational awareness across the force.

The analysts of the MI battalion provide the division G2 and commander with an assessment of the division's vulnerabilities and the adversary's RISTA capabilities. As part of the division's overall mission planning, wargaming, and rehearsal effort, it produces a graphic portrayal and understanding of how "Red" (the adversary) sees "Blue" (friendly forces). Thus, commanders can quickly assess their options and determine what measures to take, including C²W and the precise targeting of the adversary's RISTA capabilities.

With organic and supporting counterintelligence (CI) assets, the battalion supports the planning and conduct of operations security, counter-RISTA, and deception operations. It can employ its organic EA assets, in conjunction with EAD and joint capabilities, in support of counter-RISTA and C²W operations. Using organic and leveraged joint capabilities, the battalion also supports the targeting of key C² and RISTA capabilities.

Gain Information Dominance. To Division XXI, information dominance means achieving a better understanding of the current situation and end-state than the adversary's understanding. It means

knowing the location and status of friendly forces in relation to the enemy and the environment. Division XXI achieves information dominance through the conduct of information operations (IO). These IO include the establishment of a robust command, control, communications, computers and intelligence (C⁴I) system or network, the gathering of friendly force and other relevant information, the conduct of focused intelligence operations, and the synchronized conduct of C²W.

The MI battalion, in support of the G2 and brigade S2s, plays a significant role in developing situational awareness. The ACE at the Division and the analysis and control team (ACT) at the brigade, in conjunction with the G2 and the brigade S2s, plan and direct the conduct of RISTA operations to satisfy the commander's priority intelligence requirements (PIR). Using the automated capabilities of ASAS, they filter and fuse the large volume of sensor data (including bottom-up RISTA and top-down intelligence) and then interpret it and produce intelligence products which are integrated into the division's common picture. The division uses these products for mission planning, wargaming, and rehearsals as well as the execution of decisive operations.

The division must... conduct simultaneous attacks across the battlespace

The battalion employs its organic collection assets—UAVs, the Ground-Based Common Sensors, Advanced QUICKFIX, and human collectors—to satisfy PIR and support targeting, battle damage assessment (BDA), and C²W. Its ability to access and leverage joint, EAD, and multinational capabilities via the CGS and ASAS is vital to the conduct of multidimensional operations and targeting.

To degrade the enemy's understanding of the battlespace, the battalion supports the conduct of counter-RISTA and C²W with organic and supporting CI and EA assets. Access to higher echelon assets such as the Joint Surveillance and Target Attack Radar System (Joint STARS) enables the Battalion's ACE and ACT to support battle management (for example, friendly-force tracking), which is also a key component of information dominance.

Shape the Battlespace. Once the commander has achieved information dominance, he must identify when and where to act, and set the conditions in preparation for decisive attack. This requires the commander to see deep, establish and maintain contact with the enemy, and precisely locate and engage HPTs.

The MI battalion, in coordination with the G2 and S2s, will enable the commander to visualize the battlespace so he can better seize the temporary opportunities that come from an information advantage. The MI battalion provides multidimensional deep- and wide-area surveillance through corps assets like the GUARDRAIL Common Sensor (GRCS) and Joint STARS, its organic UAVs, and its capability to access and leverage joint, EAD, and RISTA assets through the ACE. Precise target location, identification and tracking capabilities, and sensor-to-shooter links allow for cross-cueing of the division's deep attack assets. The battalion's ground- and air-based signals intelligence (SIGINT) and EA capabilities provide the commander with the capability to conduct synchronized C²W attack with both lethal and nonlethal means. Its deep-surveillance assets, including the UAVs, conduct timely BDA for attack and also re-attack purposes.

Attack Decisively. The division must be able to conduct simultaneous attacks across the battlespace, massing the effects of its forces to achieve quick, decisive results. To do this, the divi-

sion commander must have continuous situational awareness, intelligence on the move, and precise targeting and tracking of both enemy and friendly forces.

The Division XXI MI battalion provides the division commander with—

- Continuous situational awareness for force positioning and accurate identification, location, and tracking of obstacles, formations, and HPTs.
- Dynamic links of sensors to shooters and cross-cueing.
- The capability to track friendly forces.

This allows the maneuver commander to simultaneously attack in depth, and mass the effects of his combat power on HPTs and enemy C². Simultaneously, intelligence will continue to provide force protection across the division battlespace.

Sustain the Force. The division must be capable of sustainment during their deployment and operations. They must be able to rapidly transition from combat operations to a variety of possible missions (such as redeployment). Throughout these transitions, the commander must be able to keep an "overwatch" to protect his force and prepare for future operations. The MI battalion is a flexible, tailorable force that easily adapts as the division transitions to future operations or redeployment, while providing continuous intelligence "overwatch."

Implications

The challenges that the MI battalion will face supporting Division XXI operations require revisions in our doctrine. MI will incorporate these changes and revisions in the next family of manuals and doctrinal publications emerging from changes in our technology, equipment, and the nature of operations. They will then establish the framework for the tactics, techniques, and procedures (TTPs), the Experimental Force (EXFOR), Task Force XXI, Divi-

sion XXI, and the Advanced Warfighting Experiments.

These changes in doctrine imply training challenges for the force. Intelligence leaders and soldiers require a different set of skills to be able to operate effectively in Force XXI decisive operations. Soldiers down to the lowest level require a higher levels of operational understanding, computer literacy, and presentation skills. Leaders will have to use advanced techniques and technologies to conduct training, incorporating realistic intelligence processing and analysis during live, virtual, constructive simulations and exercises.

Division XXI operations require an integrated "total force" intelligence concept

The Division XXI MI battalion will be a place to grow and groom future G2s, S2s, and MI commanders. Our intelligence officers and NCOs must thoroughly understand Force XXI decisive operations to be able to support their warfighters. Likewise, Division XXI leaders must understand the capabilities and limitations of the intelligence force.

Division XXI operations require an integrated "total force" intelligence concept, where higher and lower echelons operate in concert. Organizations must be modular, highly mobile, deployable, and tailorable, with organic, dedicated intelligence analysis capabilities. They must also be capable of commanding and controlling a variety of diverse augmentation from EAD and joint organizations.

The equipment and systems in the MI battalion incorporate open system architectures to allow for upgrades, modernization, and interoperability. Management tools are automated, and they allow dynamic management and retasking of collectors in real time. MI systems are capable of conducting

full spectrum collection, automated processing and analysis, and automatic target recognition (ATR). They provide multimedia presentation tools to help the commander visualize the battlespace.

This modernized force, with streamlined, modular organizations and state-of-the-art systems requires the highest quality personnel to make it work. Intelligence soldiers in the Division XXI MI battalion must meet high standards of tactical and technical proficiency, and operational understanding.

Conclusion

The Force XXI Division must simultaneously conduct multidimensional nonlinear operations against a wide range of unpredictable threats. Division commanders must be able to see in depth, locate and engage HPT with precision, and dominate their battlespace, all within the context of the Division XXI patterns of operations. The Division XXI MI battalion meets those requirements, providing the division commander with the capability to operate decisively and to protect the force before, during, and after operations. It provides intelligence support in tailorable packages with quick adaptability. This intelligence force will have modernized systems and quality people with advanced skills and high operational understanding to support Division XXI decisive operations.

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The Airborne Division's Initial Entry DISE

by Lieutenant Colonel
Victor M. Rosello

Since the earliest development of the U.S. Army's airborne doctrine during World War II, split-basing has been the mainstay of airborne division operations. It is also the fundamental basis for the "18 hours from wheels up" alert and deployability criteria which is the "raison d'être" of U.S. strategic airborne forces.

More than a fundamental basis, deployability and split-basing are a mindset prevalent in all planning and coordination of airborne operations by the 82d Airborne Division's combat and combat support personnel. As an integral part of the airborne team, military intelligence (MI) is no exception. It is thereby encouraging that as a direct result of Operation DESERT STORM, new interest has developed in the last five years for split-basing and the creation of deployable intelligence support packages tailored to the needs of the heavy or light division commander. The incessant staccato pace of peacekeeping operations by the entire Army may be providing the pressure for additional interest. It is not surprising, therefore, that acronyms such as DISE (meaning Deployable Intelligence Support Element) are becoming part of the standard military lexicon and are more widely accepted (and understood) by the military at large.

The term DISE is pithy, succinct, trendy, and captures the essence of intelligence split-basing. It may ultimately, although not currently, replace accepted airborne terms that describe varying degrees and aspects of the split-based or echelonment process. For example, terms like assault technical control and analysis element (TCAE); alpha and bravo echelonment; expanded baseline, assault analysis and control ele-

ment (ACE); ACE Forward; heavy command group, and follow-on AirLand package all convey different aspects and degrees of DISE operations within the airborne community. It is along these lines that DISE activities have been traditionally discussed.

ACP: An Airborne DISE

The 82d Airborne Division's concept of a DISE is that of a tailored split-based support package for a forced-entry parachute assault in direct support (DS) of the Division commander in the division assault command post (ACP). The division G2 forms the nucleus of this intelligence team package consisting of personnel from the G2 section and the 313th MI Battalion's ACE. Additionally, transcription and analysis (TA) cell personnel from the 313th's general support company may be included. The G2 team is part of the "Alpha" or lead echelon of the ACP. All personnel, equipment, and vehicles of this echelon parachute assault onto a drop zone (DZ). The MI battalion's three DS companies provide DS intelligence to the division's 3 airborne infantry brigades. Although they also parachute assault along with their brigades, they are not categorized as part of a DISE.

The Division's ACP standard operating procedure best describes the role of the ACP:



U.S. Army photo

The Division Assault Command Post (ACP) is an austere element designed to provide effective command and control of subordinate units and accurate reporting to the Commander, XVIII Airborne Corps. The ACP must be capable of conducting continuous operations for short periods of time, usually less than 12 hours. The ACP is configured to allow the Commander to command and control the Division and is manned based on METT-T [mission, enemy, troops, terrain and weather, and time available]. At

a minimum the ACP must be able to control current operations, develop combat intelligence of immediate interest to the commander, control/coordinate fire support, coordinate airspace... and forward air defense artillery (ADA) operations, and communicate combat service support requirements to the rear command post.

ACP Configurations

There are three ACP configuration packages. The first of these and the most austere is the expanded (light) command group ACP with 22 personnel. The small size of this element limits the number of intelligence personnel present. Under this scenario the very smallest package is three intelligence personnel: the G2, the G2 operations officer, and an order of battle (OB) technician from the ACE. This ACE warrant officer represents the first tier of assault ACE or ACE Forward support to the G2. He is also the first element composing a very rudimentary DISE.

In addition to the intelligence personnel, two signal personnel from the 82d Signal Battalion operating the divisional operations and intelligence frequency-modulated (FM) and tactical satellite (TACSAT) nets provide communications support to this element. The TACSAT establishes the most crucial intelligence communications link back to the ACE Rear at the sanctuary base. Although this does not represent a direct link for accessing databases or national and joint collection assets in the true sense of a bonafide DISE, this link affords indirect accessing of crucial intelligence of immediate use to the initial entry force. The advent of a viable and functional Mini-DISE (Joint Deployable Intelligence Support System (JDISS)) software on a manpack and jumpable notebook computer with a TACSAT system) will eventually make this initial entry DISE communications link a reality. The FM

very-high frequency (VHF) net links the G2 on the DZ to the S2 of the Division Ready Brigade (DRB) that is the combat element of the parachute assault.

Assault Intelligence Teams

The "light" G2 team operates under the most extreme conditions, best described as being "a poncho and red-lens filter" operation (see Figure 1). The team "jumps in" all maps, templates, pens, reference materials, field manuals and classified documents. Inclement or extreme weather adds to the rigors and challenges of this type of operation. Having at least 2 personnel allows for 24-hour operations, realistically not exceeding a 72-hour period.

As portrayed, three personnel can provide intelligence support. Fortunately, the normal baseline (medium) command group assault intelligence-support package for operations of 12 hours duration is 6 intelligence personnel for a 61-person ACP. This team comprises the G2, the G2 operations officer, the G2 operations noncommissioned officer in charge, and 3 intelligence personnel from the assault ACE or

DISE: a collection management officer, an OB technician, and an enlisted intelligence analyst. The communications support stays the same. This is the standard intelligence support element package that is most exercised during parachute assaults of Division Emergency Deployment Readiness Exercises (EDRE). When the Division's QUICKFIX EH-60 helicopter supports the parachute assault, one signals intelligence (SIGINT) analyst from the MI battalion's general support company may substitute for the intelligence analyst. Used in a TA-cell mode, his job is to link the ground element with QUICKFIX and receive immediate SIGINT-derived information for use by the ACP and DRB S2. He parachutes in with his own FM VHF radio and a 3-day supply of batteries. On the bright side, in contrast to the austerity of the light ACP, the baseline ACP includes the use of the new Deployable Rapid Assembly Shelter (DRASH) which is on board one of the 5 command group HMMWVs heavy dropped onto the DZ. In the baseline ACP, the DRASH replaces a Standard Integrated Command Post (SICP) shelter.

Under more favorable METT-T conditions, the unit may, tailor a

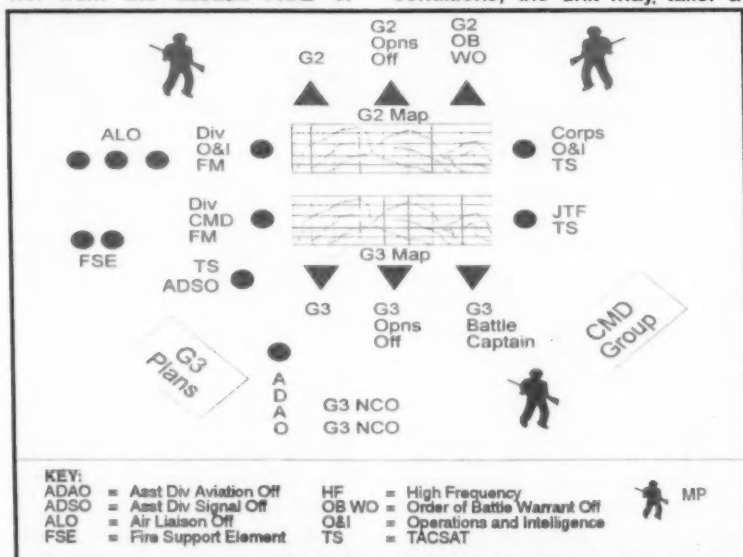


Figure 1. The 82d Airborne Division Assault Command Post.

heavy package consisting of 13 intelligence personnel as part of a 91-person division ACP. Additional personnel in this package are: G2 plans officer, assistant G2 operations officer, G2 counterintelligence officer, three ACE officers and intelligence analysts, and the staff weather officer. This larger support element would be more than capable of conducting effective sustained operations for an indefinite period of time, if required. Again all the personnel, including the signal support personnel, parachute assault along with the ACP. Under ideal conditions this would be the standard size of the intelligence support element.

Other Variants

The key to an effective intelligence support element, however, is a robust intelligence network able to effectively leverage national-level intelligence agencies while deployed on the DZ. As mentioned previously, the communications package within the ACP provides limited TACSAT voice communications relayed through the sanctuary base. To improve this limited communications base, upon the securing of an airfield or flight landing strip, the follow-on air-land package of key equipment and vehicles begins. This "bravo" or second echelon air-land package includes the G2's two principle intelligence support vehicles, the TROJAN Special Purpose Integrated Remote Intelligence Terminal (SPIRIT) II and the Mobile Integrated Tactical Terminal. This next phase of the intelligence support element arrives with four soldiers. Four more people could accompany this package along with two additional support vehicles. Their mission is to link up with the G2 team already on the DZ and fall into the established G2 and ACE assault configuration.

From an operational standpoint the follow-on air-land package shares many similarities with the 10th Mountain Division's DISE.

[See Lieutenant Colonel Brian A. Keller's article, "Building a Division DISE," in the January through March 1996 issue of *Military Intelligence*.] As can be appreciated, however, the conditions under which our airborne divisional intelligence personnel enter the conflict may be 12 to 24 hours ahead of this more robust package.

There are many excellent examples of 82d Airborne Division ACP deployments as part of major field training exercises. However, the best example under combat conditions is the 1989 parachute assault into the Torrijos International Airport in Panama during Operation JUST CAUSE. During this operation, the initial entry intelligence support element consisted of seven personnel and a heavy-dropped VSC-2 radio-teletype rig. (Note: For more details on this operation read the article "Operation JUST CAUSE: The Divisional MI Battalion, the Nonlinear Battlefield, and AirLand Operations—Future," in the *Military Intelligence Professional Bulletin*, July-September 1991. A letter to the editor in the October-December 1991 issue also provides additional facts).

Conclusion

In summary, deployable intelligence support elements have been the mainstay of intelligence support to airborne operations. To the airborne intelligence community, DISE is synonymous with austerity, particularly in the initial entry phase of a parachute assault. All equipment, vehicles, and personnel enter via parachute, thereby limiting in both size and numbers the capabilities of the airborne intelligence force. Follow-on air-land vehicles and equipment afford a much needed robustness. However, they may take an additional 12 to 24 hours



The unpacking of a "HUMMER."

U.S. Army photo

to arrive after the initial entry force if secure conditions have not been met for U.S. Air Force cargo aircraft landings. Based on the conditions of forced entry operations (a "heavy" number of combat forces versus minimal combat support personnel), the initial entry DISE is a bare-bones minimum package. However, this is a small price to pay for a unique capability that ensures that the commander will always have an intelligence team with him—ALWAYS OUT FRONT, ready, willing, and able to support the airborne mission within 18 hours of notification and wheels up.

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Internetted Structures and C² Nodes

by Robert J. Bunker, Ph.D.

In the article "Center of Gravity" (*Military Intelligence*, April-June 1995), Captains Bruce Niedrauer and Lisa Bennett succinctly emphasized the concept of understanding the center of gravity and why it is critical to intelligence personnel. This concept, based upon Army doctrine, has been published in FM 100-5, *Operations*.¹ Since the publication of FM 100-5 in June 1993, however, a number of doctrinal concepts and premises have become obsolete in the rapidly changing environment in which the Army conducts operations. Questions of "conceptual obsolescence" have already been raised toward the former concept of operations other than war (OOTW) and, more recently, toward unidimensional definitions of battlespace.²

Given this concern, the utility of the center of gravity concept for military intelligence (MI) practitioners should be reexamined. It is only through such reexamination and continual questioning of basic ideas and warfighting doctrine that the Army can attain its Force XXI vision, assured of its dominance on the emerging information battlefield.

Internetted Structures

The MI community faces a major challenge due, in no small part, to emerging forms of advanced informational technologies. These technologies provide the impetus for development of new intelligence and electronic warfare (IEW) doctrine and new changes in organization to successfully exploit it. One significant area of impact these technologies will have on the future battlefield is that of battle command.

Training and Doctrine Command (TRADOC)'s Pamphlet

525-5, *Force XXI Operations*, discusses the impact of technology on battle command. The pamphlet also highlights the development of nonhierarchical, force management structures. The impact of this new form of force management will more than likely "alter, if not replace, traditional, hierarchical command structures with new, internetted designs."³ (See the difference between the types on the top line in Figure 1).

The physical basis of such internetted structures can be found with the creation of the Advanced Research Project Agencies Network (ARPANET) in 1969.⁴ An experiment conducted by the Defense Advanced Research Projects Agency, the ARPANET experiment sought to explore technologies for the networking of remote research sites. ARPANET sends independent digital packets over networks "internetted" together to pass information.

This informational structure is analogous to the functioning of the human brain, with its network of synapses, axons, and dendrites. Such a networking scheme is robust because if part of it sustains an injury, the digital packets can be rerouted to other still-functioning networks. The dynamic property of internetted communications technology received recognition early. Internetted communications technology was advantageous because of the threat of a potential nuclear exchange (and the resulting communications-destroying electromagnetic pulses) during the Cold War.

Although the Cold War is over, TRADOC has not forgotten the advantages that internetted structures provide to military forces. In fact, such structures will likely form the basis of what are being called complex, adaptive armies.⁵ These high-technology armies will qualitatively outclass the Force XXI Army. This Army, although

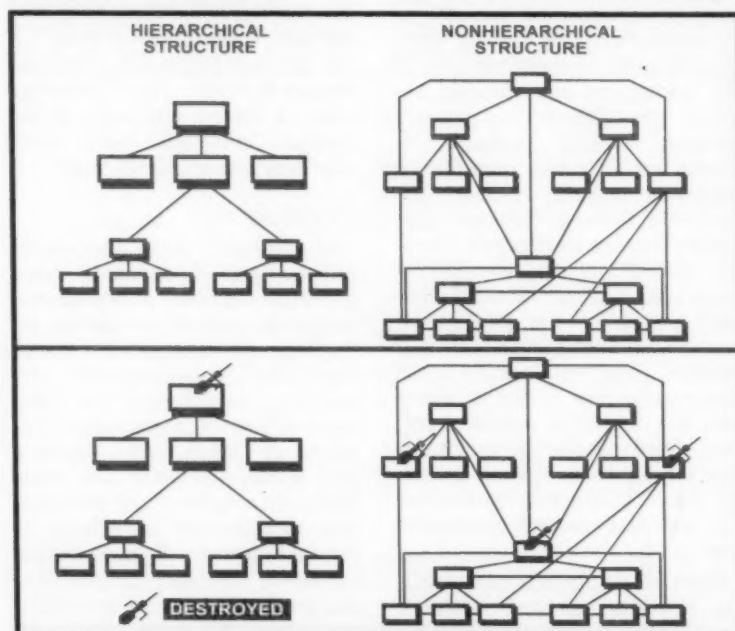


Figure 1. Command Information Structures.

smaller in size than some late-20th-century century armies, is posturing itself to be the dominant force on tomorrow's battlefield.

C² Nodes

Complex, adaptive armies will dominate the 21st century battlefield. These armies will be of concern to MI professionals in the future, both to support the tactical warfighter in the Force XXI design effort and to aid that warfighter in the defeat of an opposing, high-technology force.⁶ The development of complex and adaptive armies will be problematic for intelligence personnel because determining an enemy's center of gravity will be impossible when such a center no longer exists.

Such a perception is directly at odds with the center of gravity definition found in FM 100-5:

The hub of all power and movement upon which everything depends; that characteristic, capability, or location from which enemy and friendly forces derive their freedom of action, physical strength, or the will to fight.⁷

The fact that internetted structures function in a fundamentally different way than more traditional hierarchical ones provides the basis for this perception. This robustness means that internetted armies will be far more difficult to defeat on the battlefield because of their advanced battle command structure. No longer can a unit mass its efforts on a single element to defeat an enemy force.

As an example, a decapitation strike against the center of gravity of a hierarchical structure can paralyze its decisionmaking capability as shown in the bottom left part of Figure 1. Such a strike would have almost no effect on a nonhierarchical structure. In fact, as can be seen in the bottom right part of the Figure, it would require three precision strikes to effectively degrade the information flow between the two halves of the nonhierarchical structure. Even that would not guarantee decisionmaking paralysis within

its remaining warfighting units because that function is highly decentralized.

As a result, the concept of "command and control (C²) nodes" will need expansion as will the parallel massing of an Army unit's combat potential toward an enemy force.⁸ One can speculate that only a simultaneous strike against the C² nodes of an opposing internetted structure can rapidly secure defeat of the enemy. MI practitioners should thus consider the feasibility of an operational concept based on that of a "C² nodal strike" to help the commander defeat an opposing high-technology force. While such opposing forces may not exist for at least a decade or two, their future development based on an internetted battle command is inevitable. Trends also suggest it will be very difficult to isolate the C² nodes of opposing forces because of counter-informational developments based on Stealth and other emergent technologies.

Furthermore, development of internetted structures is likely within societal institutions. Isolating national will, public opinion, or even key individuals as a likely center of gravity will no longer be feasible. Prior to the start of operations, intelligence must identify a cluster of important nodes representing the C² centers of such internetted structures. These structures will probably gain protection from counter-informational developments; they will result in new challenges which MI must overcome.

Conclusion

As noted in TRADOC Pamphlet 525-5, internetted structures will have a significant impact on 21st century battle command and, as a result, will likely form the basis of complex, adaptive armies. These armies, and potentially the societies that they mirror, will be informationally robust in nature. Consequently, this article argues that the current center of gravity concept found in FM 100-5 will not apply to them.

The professional contribution to MI in their discussion of Army doctrine by junior officers such as Captains Neidrauer and Bennett is praiseworthy. At the same time, however, we encourage them to take a risk in their writings and actively participate in the development of new doctrinal concepts. For MI to successfully support the Force XXI vision, it must now begin to develop new concepts, such as that of C² nodes, and determine their potential utility to future IEW operations.

Endnotes

1. U.S. Army, FM 100-5, Operations, June 1993, p. 6-7.
2. Colonel James M. Dubik, USA, "War in All Its Forms," *Armed Forces Journal*, April 1994, p. 35; Colonel Robert Killebrew, USA, "Why War is Still War: Operations Other Than War Are Proving Awfully Warlike," *Armed Forces Journal*, January 1995, p. 35; David A. Fastabend, "Checking the Doctrinal Map: Can We Get There From Here with FM 100-5?" *Parameters*, Summer 1995, pp. 37-46; Robert J. Bunker, "Rethinking OOTW," *Military Review*, November-December 1995, and Robert J. Bunker, "Advanced Battlespace and Cybermaneuver Concepts: Implications for Force XXI," NSSP Report 95-2, National Security Studies Program, California State University San Bernardino, July 1995, pp. 1-17.
3. TRADOC Pamphlet 525-5, Force XXI Operations, 1 August 1994, p. 2-8.
4. Their conceptual basis can be found with the "memex," see Vannevar Bush, "As We May Think," *The Atlantic Monthly*, July 1945, pp. 101-108.
5. TRADOC Pamphlet 525-5, p. 2-5.
6. Non-nation forces will also represent a significant threat on the emerging 21st century battlefield. It is thought that these forces too will function primarily by means of internetted structures.
7. FM 100-5, p. G-1.
8. This parallel massing would be different than the parallel form of attack promoted by Col. Warden in his five-ring theory because that theory's target set is pie-shaped (two dimensional) or conical (three dimensional), depending on the model used, and thus still hierarchical in nature. See Col. John A. Warden III, USAF, "The Enemy as a System," *Airpower Journal*, Spring 1995, pp. 41-51. For a critique see Col. Richard Szafranski, USAF, "Parallel War: Promise and Problems," *Proceedings*, August 1995, pp. 57-61.

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Force XXI: An Army IMINT Concept

by Major Daniel W. Smith,
Virginia Army National Guard

"Future successes of Army forces will be critically dependent upon exploitation of space assets, capabilities, and products across the entire spectrum of military operations, in an environment of rapid political, technological, and economic change. Army access to national civil allied military and commercial space capabilities and products is essential to successful operations. Information technology which enables success on the battlefield relies on heavily on space operations."

—U.S. Army Space Policy, July 1994

This article identifies some of the assumptions, constraints, and applications of imagery intelligence (IMINT). It is an attempt to provide a conceptual framework for designing Army IMINT to take advantage of current and emerging sensors, platforms, technology, and programs as part of battlefield visualization and Force XXI.

The Requirement

The basic requirement for IMINT is simple to state: support the commander. The reality of meeting this requirement, like most missions, rapidly becomes complex. The Army must be ready to respond globally to all levels of conflict and action, including peacekeeping, humanitarian, and disaster relief. It must conduct operations at strategic, theater, operational, and tactical levels under any conditions anywhere at anytime. The IMINT response must be immediate, or very close to near-real time, in all weather, and at day or night to support our current intelligence operations. IMINT must also be part of a sustained basic intelligence program which allows for defining and taking proactive action before conditions become a crisis. As a result, the commander's information requirements have become much more

comprehensive and so has the IMINT mission.

IMINT must be prepared to operate under the same conditions and at the same levels as well. Additionally, we need to realize that small unit leaders and soldiers need intelligence to see over the next hill as much as commanders at higher levels require it. Small units need the IMINT because they are charged with accomplishing the mission on the ground. Thus, we have two product requirements: one to support intelligence and operational planning, and the other to support tactical execution (see Figure 1).

What has become increasingly important is not just the presentation of imagery intelligence to commanders but the interaction of the commander, his staff, and soldiers with IMINT; mapping, charting, and geodesy (MC&G); and all-source intelligence. The reference is to Force XXI's emphasis on information dominance, and the advent of Mission Planning and Rehearsal Systems

(MPRS). They can function as electronic sand tables displaying mission, enemy, terrain, troops and time (METT-T) factors. They allow commanders, staff and soldiers to interactively analyze potential courses of action.

IMINT is important in this case first because it is a visual medium (a picture is worth a thousand words.) Second, digital technology now allows not only the collection of more types of imagery but also decreases processing and dissemination time and allows the display and fusion of this data in a more comprehensive fashion. Imagery is also the primary source for MC&G data for denied or remote areas. The combination of imagery with geolocation accuracy and digital terrain elevation data (DTED) allows for the display of all-source data in the context of terrain so that the enemy capabilities for observation, cover and concealment, and fire and maneuver can be seen.

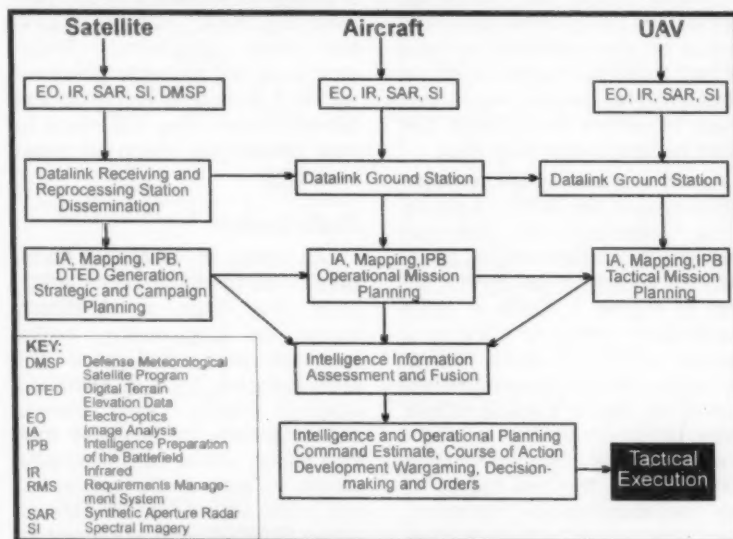


Figure 1. The Army's Force XXI Imagery Concept.

Army IMINT must provide target and situational development information. Insight into terrain and weather helps to determine effects on operations; the nature, capabilities, and activities of the threat, enemy weaknesses, and potential high-value targets. Most important, it identifies opportunities for decisive action.

Other validated requirements for Army IMINT are for mobile, easily deployable systems for the receipt, processing, exploitation, and subsequent dissemination of imagery. The systems must be reliable and have self-contained communications. To support joint and coalition operations, these systems must comply with standard product transmission formats and protocols. Transmission of imagery down to brigades and imagery products down to battalion requires broadcast technology.

Assumptions

National, allied, civil and commercial satellite systems will be active both in peace and war. Due to the physical limitations of space orbit, no satellite imaging system will always be where it can provide coverage of a crisis. Imagery analysts (IAs) must consider classified and unclassified systems for maximum accessibility and availability of imagery. Each system has unique capabilities IAs can maximize if they use them in concert. Because these systems are satellite platforms, they will be able to provide imagery of denied or remote areas.

National imaging systems designed primarily for use by the Department of Defense (DOD) and intelligence will provide classified, timely, high-resolution, but small-to-medium field-of-view imagery. Spectrally significant but less timely low- to medium-resolution large area coverage imagery will be available from U.S. and foreign civil and commercial imaging systems. A number of commercial systems with resolutions of from one to three meters will, for a price, provide medium resolution imagery.

Theater systems will be mission-constrained but active in peacetime; they will not penetrate denied airspace under peacetime conditions. During crisis and war, the enemy's air defense capability and weather will constrain them.

Tactical systems will not generally be active during peace, but very active during crisis and war. With the advent of unmanned aerial vehicles (UAV), imagery will become more available even at lower tactical levels.

Army IMINT will transition from light tables to softcopy devices in order to speed exploitation. There will remain a need for hardcopy products, primarily to support tactical end-users.

The Army will develop and implement digital sanitization capabilities at all echelons. Digital sanitization is the combining various types of imagery, all-source intelligence, and MC&G data to produce a collateral secret or unclassified product which protects or removes sensitive imaging and intelligence capabilities yet provides actionable intelligence.

The intent of digital sanitization is to provide a product tailored to support the execution of the tactical mission. The format may be either hard or soft copy. The products can be line drawings, annotated image maps, or perspective views of a target, objective, or avenue of approach. For example, during the Vietnam War a special forces task force trained for the 1970 Son Tay raid to rescue captured pilots using imagery to produce and update a scale model of the prisoner-of-war compound. Imagery also helped produce a full-size mock up of the compound for mission rehearsals. Operation DESERT STORM provides another example. The Air Force Mission Planning System used imagery and DTED to produce fly-throughs for pilots rehearsing a mission. There is no technical reason DOD cannot expand this capability to support ground operations.

On 13 December 1995, the Director of Central Intelligence approved the policy for imagery-derived unclassified products created from current reconnaissance satellite imagery. The Central Imagery Office (CIO) will distribute implementation details in a forthcoming U.S. imaging system (USIS) directive. The 20-page policy outlines the approval process and includes request forms. Copies are available through the CIO Policy Division at (703) 275-5845 or DSN 235-5845 (STU-III) and they intend to make the policy available on the INTELINK.

Current IMINT Concepts

Currently, IMINT elements provide imagery by "pushing" it down to imagery exploitation organizations who then produce and distribute products as requested. The system has been successful in supporting corps- and sometimes division-level end-users but IMINT is not usually disseminated any lower. The products supported by "push" dissemination are text messages, hardcopy film, photographic prints, line drawings, terrain and target models, and situational graphics.

IMINT Concepts Supporting Force XXI

"Pull" dissemination allows organizations to request what they require through the Requirements Management Systems and prevents their inundation with unnecessary imagery. For "pull" dissemination to work, there must be a supporting communications capability for timely dissemination of imagery, MC&G data, and all-source intelligence. Dissemination does not necessarily have to be electrical to meet peace timelines; mail or courier delivery may suffice. Contingency plans must be made for prioritized electrical dissemination or courier delivery during crisis or war. An example would be providing an imagery database for a unit's contingency operations on a compact disk with read-only memory (CD-ROM). Both periodic receipt of another

CD-ROM updating the coverage and electrical receipt of imagery for specific targets and named areas of interest (NAIs) could update this database.

Also required is an architecture of related archives on which to store these imagery databases through the various operational levels (from national to tactical) to depict a unit's areas of interest and influence. There are a number of efforts to accomplish this at the national and theater commander in chief (CINC) levels but it must also be extended to the tactical level to support planning and execution of missions.

At the tactical level this archive will provide access to an imagery database of historical area coverage. Seasonal or situational coverage from national, theater, allied, civil, commercial, weather or digital hand-held imagery systems can update archival information and relate it to all-source basic and tactical intelligence. (The special forces, long-range surveillance units (LRSU), brigade and battalion provide the hand-held imagery.)

"Pull" dissemination and imagery archives must be focused to support two concepts and capabilities. They are the digital area studies (DAS), and the Mission Planning and Rehearsal Systems (MPRS).

Digital Area Studies

The DAS is a concept to modernize basic intelligence by using geographic information systems (GIS) to organize input from various DOD, Army, intelligence and civil government agencies that provide instantaneous and comprehensive intelligence for a specified geographical area. The intent is also to reduce duplication of effort and facilitate the fusion of diverse and multiple sources of basic intelligence data.

The contemporary geopolitical situation requires the United States and the Army to have detailed information on a greater number of areas than during the

Cold War era. A database helps us to better monitor and assess foreign area political, demographic, and economic trends; military and trade activities; foreign relations policies and other factors to influence decisionmakers in supporting U.S. national interests. The Army needs this data to identify critical areas, plan responses and support mission execution if tasked. It is obvious that properly populating DAS is clearly more than an Army task. It will require input from every U.S. Government organization involved with projects overseas. There is also the implication that DAS would have to have various security levels as well as formats for input and communication protocols.

DAS amasses, correlates, and manipulates data. The tactical-level commanders, staff, and troops require MPRS to tailor and interact with the information about their specific areas of interest and influence, NAIs, targeted areas of interest (TAIs), and objectives. The importance of MPRS is its capability to allow end-users to "see" the battlefield.

MPRS will rely on IMINT to provide the base information for the historic and current state of the terrain. It is critical that MPRS can "ingest" any imagery related to a specific geolocation and display information visually from the DAS or a specific fusion system like the All-Source Analysis System.

MPRS Assistance

MPRS can help in a number of activities. These include—

- ☐ Planning and assisting in the design of ground and air routes and avenues of approach.
- ☐ Developing sites, targets, and actions on the objective and helping to design the tactical schemes of maneuver.
- ☐ Assisting in the planning of fire support and air operations in support of planned suppression, avoidance, or destruction of threat capabilities.

- ☐ Improving the commander's "vision" by moving through the operational area and depicting other aspects of mission execution (navigation rehearsal).
- ☐ Assisting participants in recalling and explaining details of an operation; patrol-debriefing lessons learned during an after-action review.

MPRS will not change the thought process required by current mission planning procedures or substitute for the mission analysis process. It will improve the execution of planning procedures by allowing the commander and staff to envision the operational area and METT-T factors.

Availability, age, and accuracy of data will limit both DAS and MPRS. (There is technology to support both concepts but no coordinated architecture to provide data.) Figure 2 is a chart containing elements required in a battlefield visualization architecture. There is also the likelihood we will have to acquire or provide data to coalition partners.

Training

After considering the above assumptions and concepts, several implied training tasks are apparent. They are—

The Army must train imagery analysts (IAs) to exploit imagery from national, allied, theater, tactical, civil and commercial systems. They must use basic hardcopy techniques, and applied softcopy image processing to select, input, geolocate, analyze, and merge with all-source intelligence data to output hardcopy or softcopy products. IAs must understand primary and secondary imagery dissemination and be able to interact with and retrieve imagery from distributed archives at various operational levels. IAs must know how to input to and exploit GIS. They must also understand and apply established imagery security policy.

For IAs to remain proficient, they must work with imagery and imagery exploitation tasks. Corps-

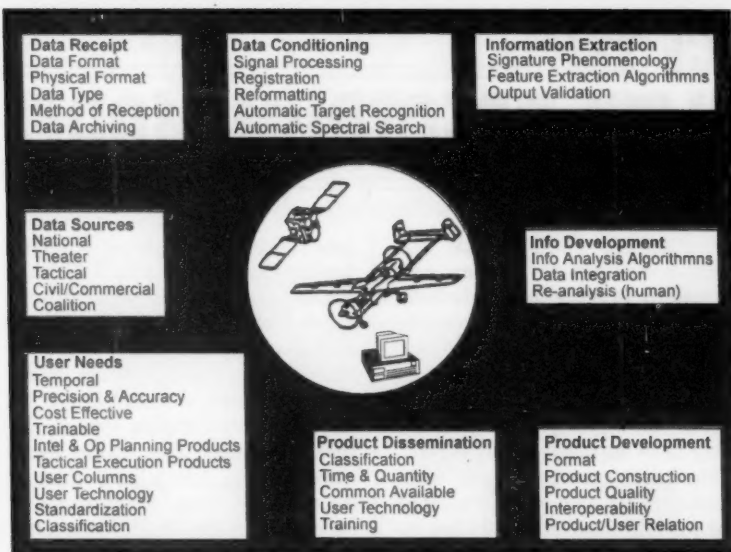


Figure 2. Visualization Architecture.

level organizations have the access and assets to do this. The Army Space Program Office (ASPO), Army Space Command, and the Tactical Exploitation of National Capabilities Program (TENCAP) have provided IMINT capabilities to corps and selected divisions. ASPO has developed the Imagery Training Tool which, if provided to more units, can assist Army IA's to stay current and effective in their military occupational specialties.

Army middle managers (officers and noncommissioned officers (NCOs)) must understand basic IMINT security policy, request procedures, capabilities, limitations, and applications which assist in "seeing" their area of operations. They should know the concepts of DAS and MPRS, and their potential contribution to battlefield visualization. These concepts should be included in basic, advanced, command, and staff courses, and the Command and General Staff College.

Senior officers must integrate into the learning objectives a basic understanding of imagery security policy, technology including general system characteristics, sources, processing, exploitation and products. They must know IMINT's role in supporting Army

and DOD missions. They should see the link between DAS, MPRS and winning the information war.

Most importantly, end-users should be provided a basic understanding of all standard imagery characteristics and standard imagery applications and products. For example, image maps should be included as part of all map reading courses so soldiers will be able to use them if line maps are unavailable.

Train as you would fight. IMINT should be a part of direct support to all combat training center (CTC) rotations for predeployment, deployment, operations, and used during after-action reviews (AARs).

Converging Programs

Due to a number of factors, including study of Operations DESERT SHIELD and STORM AARs, CIO conducted a study and used a community-wide task force to review imagery security policy. A key recommendation was to provide most national imagery at the collateral secret level in order to meet the requirements of a broader customer base.

The Defense Mapping Agency (DMA) is developing a controlled imagery database (CIB) product based on SPOT imagery (a civil

satellite imaging system operated by the French). DMA is requesting the CIB be allowed to use declassified national imagery to provide worldwide coverage at a 5-meter spatial resolution. CIB could be one of the imagery baselines used support to DAS and MPRS.

Upcoming Changes

Invest in coordinating the systematic evaluation and the procurement of technology for DAS, MPRS, civil and commercial imagery. (This can be done within the Army with the knowledge that for a comprehensive DAS we will need input and interoperability with the other Services and U.S. Government agencies at a minimum.) For DAS to be effective, there will have to be a U.S. Government-wide effort to procure, populate, and to use it as a database to synchronize government agencies.

The Army should improve IA and terrain analyst training and IMINT support to CTCs, the Army War College, NCO and officer basic and advanced courses for combat arms as well as intelligence, and training for soldiers and various end-users. Users and producers must have a common understanding of how to exploit and apply IMINT to their missions.

Conclusions

This article presents some ideas on how IMINT can better support Force XXI. Many of these concepts and converging programs will specifically support battlefield visualization. IAs can combine them with open-source information to provide not only more information with a greater level of detail, but also in a visual medium which can assist commanders and soldiers to see and interact with available information about an area of operations.

IMINT can contribute to solving a great challenge to Force XXI. The 21st century force is not only

(Continued on page 53)

SUPPORT TO FORCE XXI: LAND CAPABILITY SPECTRUM MODEL

by Kent Schlusell, Ph.D.,
Ben A. Farmer, Jr., and
Paul A. Zimmerman

The views expressed in this article are those of the authors and do not reflect the official policy or position of the National Ground Intelligence Center, the Department of the Army, Department of Defense, or the U.S. Government.

The world presents a dynamic and fluid situation with no single potential adversary or clear threat to the United States or its allies. This fluidity is attributable to communications technology and to the decreased ability of nations to control their borders, from both a physical and an intellectual perspective. Hence, there is now a trend toward increased flow of information, religions, and people across national borders. Drug cartels and crime syndicates are also spreading worldwide and forming cooperative agreements. Multinational corporations are establishing operations in countries where they would have been barred from doing so only a few years ago. Technology transfer, knowledge transfer, and materiel proliferation are on the rise. Conflict is increasing in frequency and intensity.

Global Threat Model

Thus, the Army intelligence community has been faced with its greatest challenge in more than 50 years—capturing information, analyzing that information, and presenting the resultant analysis on all the countries of the world. With more than 200 land armies in the world, the job of staying current on all these armies is a challenge. In the summer of 1993, the Deputy Chief of Staff for Intelligence (DCSINT) questioned how we could overcome

this seemingly awesome task. Was there some way to measure each land army in order to give both the decisionmaker and the soldier in the field the information each desired at a glance? More important, could we develop a spectrum of armies that would allow comparison of each army to all the others of the world?

The decisionmaker needs condensed information at his fingertips and the background details when required. The planner needs something more so that he can determine appropriate force composition; the soldier in the field needs knowledge of the overall capability of the enemy. A further requirement is that all this information must be user-friendly and readily accessible on platforms with which the vast majority of the users are familiar.

Defining the Threat

In response to these challenges, the National Ground Intelligence Center (NGIC) is developing an automated threat model called the Land Capabilities Spectrum Model (LCSM). It replaces the Cold War paradigm of threat analysis to capture the full spectrum of potential adversaries' military capabilities—the future threats to Force XXI and the 21st century world. This model arrays potential threats across a spectrum ranging from simple to complex in scope, doctrine, organization, training, material, leadership, and soldiers. LCSM will aid the intelligence consumer in evaluating his situation regardless of the country, army, type of operation involved, or changes in circumstances. The LCSM model evaluates foreign ground force effectiveness and displays the result graphically.

The major assumption underlying the LCSM (previously called the Threat Spectrum Model) is that analysts can sort the armies of the world

into a reasonable number of groups having similar properties. The basis for this assumption is the mathematical discipline of complexity. Key to understanding complexity is the notion that interactions between the entities composing a system dictate the behavior of a complex system, not the composition of the entities themselves. These interactions occur at the threshold of stability and chaos, the edge of chaos. Further, the interactions are nonlinear: the whole is not equal to the sum of the parts. A manifestation of nonlinear systems is that we can amplify small changes in initial conditions so that they markedly affect the behavior of the entire system across national borders and cause the system as a whole to exhibit what is termed "emergent behavior." Emergent behavior consists of unanticipated actions exhibited by the system; once observed, however, these actions become routine. There seems to be a fundamental characteristic of nature that systems composed of interacting elements naturally and inevitably evolve to a critical state—the edge of chaos. This is the theory of self-organized criticality. Self-organized criticality is observable in many natural settings such as earthquakes, economic systems, and even biological systems. This implies that mathematically, we may observe emergent behavior.

The LCSM approaches the problem both from the top down and the bottom up. The overall construct provides a view of the relative capabilities of the world's ground forces at a glance (top down), while its underlying structure leading to self-consistency, in accordance with the principle of self-organized criticality, is seen from the bottom up. This approach transforms information about ground forces into knowledge-at-a-glance.

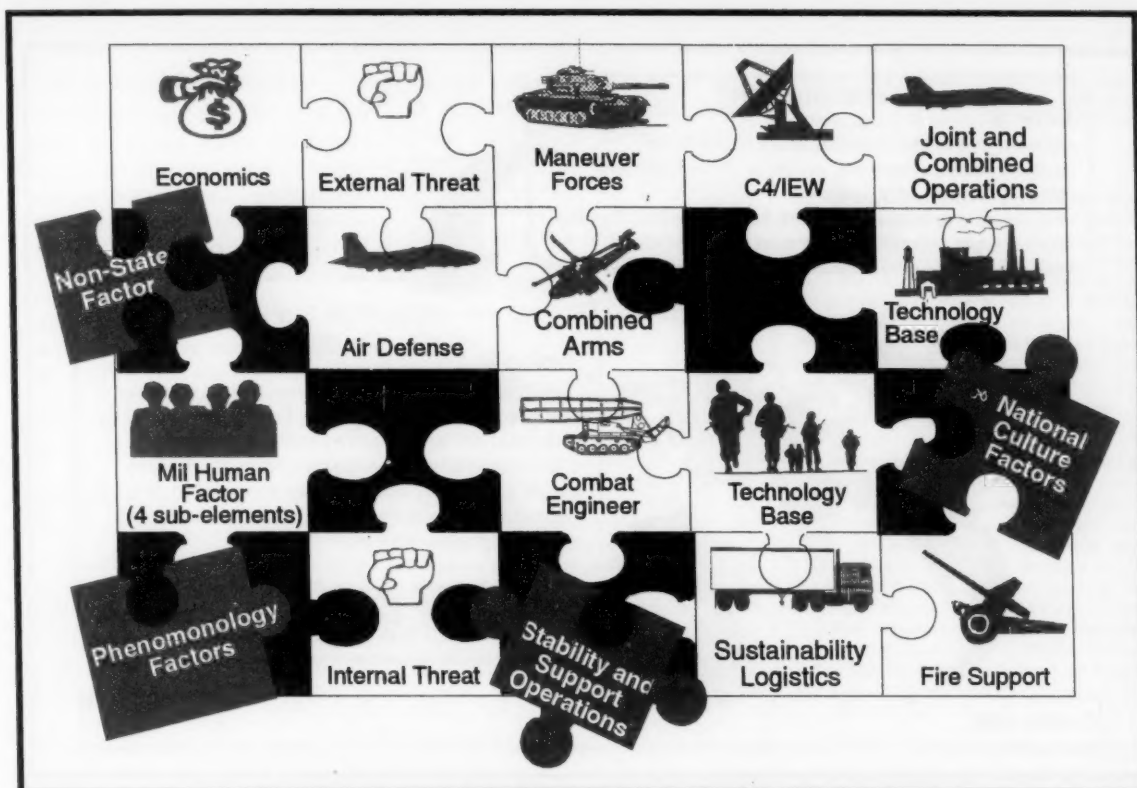


Figure 1. Some Factors Which Comprise the LCSM Terms of Reference.

Terms of reference (TORs) have been developed to define and normalize the exact definition of a certain level of capability, which serves to standardize the rating system. The LCSM breaks down the TORs into various factors (see Figure 1).

- ☐ Command, control, communications, computers, and intelligence, and electronic warfare.
- ☐ Maneuver forces.
- ☐ Combined arms.
- ☐ Joint and combined operations.
- ☐ Technology base.
- ☐ Fire support.
- ☐ Air defense.
- ☐ External threat.
- ☐ Internal threat.
- ☐ Economics.
- ☐ Military human factors.
- ☐ Training.
- ☐ Combat engineering.
- ☐ Sustainability and logistics.

Analysts define each factor and establish 10 levels within each factor (with 10 representing the greatest

capability and 1 the least capability). The TOR not only defines each term and level but also constitutes a useful tutorial document that explains what it means to have certain levels of capability. (Figure 2 shows a sample LCSM computer screen defining capability levels.) With more than 200 land armies in the world, the job of staying current on all these armies is difficult and the documentation sets a *de facto* standard as the focus changes from country to country. In the process of building the inputs to the LCSM, the analyst "rates" each country against the TORs. For each factor, the analyst must write a short explanation of why a country received a rating at a particular level within each factor of the TOR.

The LCSM developers then consolidated raw ratings from the 14 factors of the TOR and applied them against the mathematical model. This produces a military capability potential (MCP) value. This nonlinear value allows one to rank the countries by their composite capa-

bilities. It should be noted that analysts weighted the various factors of the TOR relative to each other; the user can change the weighting if deemed necessary. The MCP comprises 10 levels, and the levels place the rated countries along the spectrum by level (see Figure 3 for a capability and complexity spectrum). In essence, the LCSM allows one to take seemingly independent factors and integrate them into an aggregate military capability. At the present time, the 14 TOR factors allow us to measure the MCP at a single slice of time. A predictive capability is under development.

The LCSM provides a user-friendly way to identify military capability potential around the globe. The model gives the user analytic evaluations, charts, and a color-coded world map showing overall military capability, troop strengths, and a selection of the 14 critical factors in a nation's military posture. The LCSM runs on a laptop computer and gives users full access to documentation on all of the features,

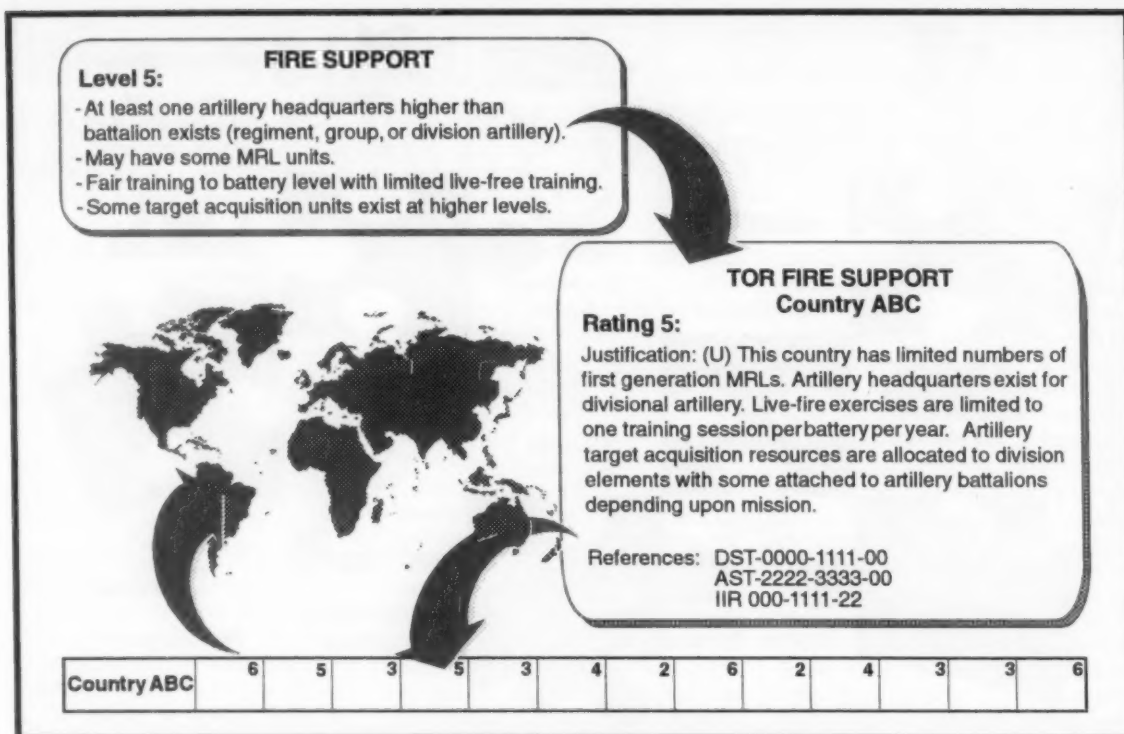


Figure 2. Sample LCSM Computer Screen.

mathematics, and terms of reference used in the model. It also provides validated country assessments and lets the user make "what if" changes to see the impact of changing conditions on a given country or the balance of power in a region or across the globe.

Depicting the Threat

The LCSM provides a number of graphs and charts to assist decision-makers in analyzing change. Charts include two-country comparisons of historic timelines and two-country raw-capability comparisons. There are also graphs showing, among other things, the propensity for disorder within a country and a visual comparison of military capability potential with the size of the force. All the graphs and charts automatically detect user changes to the ratings and give warnings when modified data have been used in a chart or calculation.

The graphics provide an easy-to-understand visualization of each country's MCP while the ready access to the terms of reference pro-

vides a yardstick for assessing change in a dynamic world. The LCSM is the first tool that visually demonstrates the effect of technology-base upgrades, changing economic conditions, perceived threats,

and military acquisitions on the global balance of power. The LCSM gives a powerful new capability to strategic planners and others who need quick updates on a rapidly changing world.

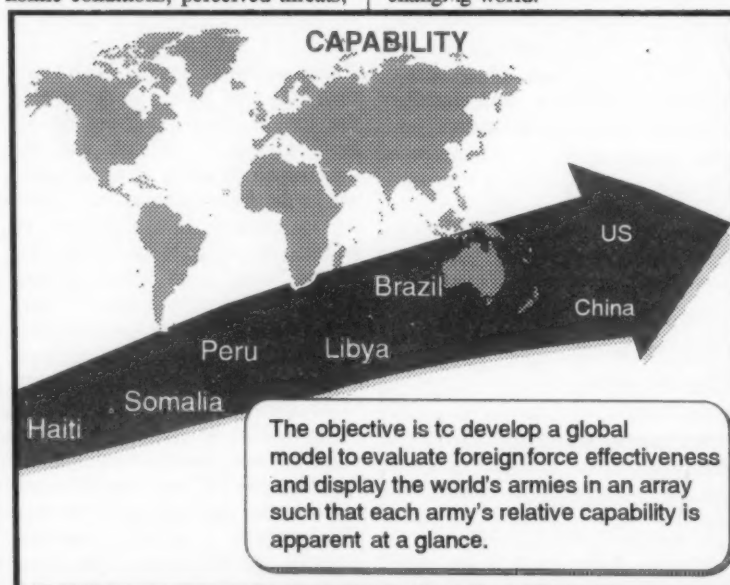


Figure 3. The LCSM Capability-Complexity Spectrum.

Future Development

We will expand the LCSM in the future to include additional factors such as stability and support operations (non-war military operations), non-state factors (international terrorism, international crime, and drug cartels), and factors of national culture, and even phenomenology. The LCSM will include these because it considers scenario-dependent factors. In addition, there is great interest in developing air and naval models for eventual incorporation in a joint model.

Conclusion

The LCSM tightly combines technical intelligence and general military intelligence assessments into a single model that provides a broad, integrated view of the world. U.S. forces must be ready to deal with a richness and variety of threats that in

the past either did not exist or were of less importance than the traditional monolithic threat. Understanding this new world order requires a different perspective. The LCSM is the frontrunner in dealing with this new paradigm by evaluating ground force effectiveness and graphically displaying the resultant data for answers at a glance.

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The Threat Environment in Peace-Related Operations

by Alan R. Goldman, Ph.D.

The views expressed in this article are those of the author and do not reflect the official policy or position of the National Ground Intelligence Center, the Department of the Army, Department of Defense, or the U.S. Government.

The disintegration of the bi-polar world order, the globalization of Western culture and ideas, growing worldwide economic interdependence, and the information explosion are transforming the international environment and creating a general crisis of legitimacy for governing elites. The breakup of the Soviet em-

pire has unleashed long-suppressed nationalistic impulses and added to the turmoil arising from ethnic and tribal conflict throughout much of the less developed world. Governments worldwide will continue to experience mounting demands for social justice, employment, the protection of lives, property and values, and even nationhood. While these demands are not likely to overthrow the nation-state as the locus of decisionmaking power on security affairs, they will create instability and occasional anarchy resulting in the erosion of state authority and the creation of new mini-states.

Fortunately, there are currently no threats to Western civilization as se-

rious as those responsible for igniting World War I, World War II, and the Cold War. However, there is always the danger that local conflicts will engage the vital interests of the major powers and set the stage for far greater conflicts. It is certain that the major powers will confront different threats than those they found most pressing for most of this century. These emerging threats will inflict violence on American civilians and servicemembers, and at times impinge upon the stability and security of the United States.

Subnational conflicts will often turn violent, and when they do they will provide daunting and novel challenges to U.S. military forces



U.S. Army photo

The fall of the Berlin Wall precipitated the disintegration of the bi-polar world order.

that have successfully waged war against the various threats from potential hegemonic powers. The transition to the present domestic and international multipolar order will spread the kind of turmoil previously associated with such places as the Andean nations of Latin America, Central America, the Middle East, and Africa. Conflict around the perimeter of the former Soviet Union at the national and subnational level already stretches from the Balkans into the Caucasus and Central Asia and north to the Korean Peninsula. Indeed, ethnic, racial, tribal, class, and religious conflicts will likely be growing global phenomena.

In the future, even the most remote and deprived populations around the world will be able to arm themselves in order to take advantage of changing circumstances, or to fend off threats to their status and way of life. As the intermixed domestic and international order seeks a new equilibrium, the necessary conditions for conflict will exist in virtually every society and nation, and especially where democratic institutions and practices are weak or nonexistent.

Modernity, Change, and Conflict

The pace and magnitude of global change will continue to shock and reshape foreign and domestic politics. For the time being, Western institutions and

values define modernity and success, including freedom and free enterprise, and by easy access to multiple sources of information. Modernity also implies the triumph of the city over the country, industry and technology over agriculture and pastoralism, and secularist opinions and life-styles over traditionalism. Post-modernity implies the pervasive power of information that is fast becoming everyone's birthright; no longer the dominion of just the few. Influence in the information age will continue to gravitate toward those with the access and knowledge to master and manipulate the communications media in all its proliferating forms. However, there will also be a seizure of power by newly aware, propagandized and partially informed groups and leaders who are driven by often inchoate fears, but

increasingly well-articulated grievances born of a rising sense of victimization and injustice.

Because modernity fosters the questioning of traditional values, it will also continue to generate a violent backlash from those threatened by modernism such as the mullahs of Iran, the elite classes of Latin America, ex-communists and new fascists in Europe, and eventually perhaps the majority of the middle class in the West. Paradoxically, it is now arguable that we are witnessing both the end of history and the reemergence of it. With the breakup of the bipolar order, it is likely that the traditional forces of fragmentation, ethnicity, backlash, and conflict will be even stronger than newer competing trends toward multiculturalism, integration, interdependence, and harmony.

Rapid, visual, undirected, or tenuously controlled change to the domestic and international order creates unusual turmoil and insecurity, and fosters in its wake a search for stability, order, familiarity, roots, and ethnic identity. Governments in the less developed world will continue to respond to popular and often frantic and fanatic demands and challenges to their rule with a confusing mix of forceful crackdowns and experiments with more participatory democracy. Government leaders are unlikely to find any antidemocratic model that works, although Asian countries as



U.S. Army photo

Soldiers patrolling along the demilitarized zone in Korea.

disparate as China and Singapore may be the exception that proves the rule, especially if anarchy and violence come to be associated with Western culture and behavior.

Progress and Conflict

With ever-greater effectiveness, individuals and groups will target corrupt, venal, and stultified bureaucratic elites. In parts of the Islamic world there is a pincer assault on the ruling order from frustrated college graduates demanding suitable jobs and from displaced religious elites who have lost much of their old authority. Articulate antiestablishment figures and popular demands in South Korea, Italy, and Mexico are forcing wrenching changes in the domestic political order in the direction of more openness and participation. However, in the Balkans, where the fault lines of faith and history run deep, the destruction of the bipolar status quo and the breakup of Yugoslavia have resulted in anarchy, ethnic- and religious-based violence, and an atmosphere of fear, hatred, insecurity, revenge and despotism.

In general, the disequilibrium and anarchy inherent to the breakup of the old order will be exacerbated by the explosive spread of information and knowledge at a time when the income gap between rich and poor continues to widen. Modernism instructs the populace about inequities, raises popular expectations, and provokes greater demands from the disenfranchised. When the people perceive the elites as unresponsive, self-serving, corrupt, and unable to provide tolerable and equitable levels of material and psychic rewards, the tinder for conflict spreads out of control.

When Conflicts Turn Violent

In his book *The Causes of War*, military historian Michael Howard wrote—

...one can divide it [the world] into those status quo powers for whom the existing international order is on the whole satisfactory, and those revisionist powers for whom it is not: who regard it on

*the whole oppressive and unjust, and who have no way of obtaining justice through the normal processes of peaceful negotiation. For whom the only way to obtain such justice may appear to be to fight....*¹

Howard also said that groups can effectively threaten peace when their armament is initially almost negligible, as often as not purloined from the armories of their opponents.²

Violence will very often accompany the transition to a new global equilibrium. There is no indication that organized mass murder on the scale perpetrated by Hitler, Stalin, or Mao is in the offing, thanks in large part to a more informed, enlightened and tolerant public. Nevertheless, the post-Cold War world order promises to be divisive, chaotic and highly conflictual. When social disintegration occurs alongside national dissolution (as in Rwanda and the former Yugoslavia with its many ethnic and religious divisions), the necessary condition for conflict is present. The sufficient condition for violent conflict exists when armaments of all types are readily available.

When a people such as the Serbs perceives itself in decline and losing control over its future safety and well-being, it is likely to seek emotional outlets against scapegoats or "enemies" who may be real or imagined. The interrelated conditions of adverse power shifts result in a growing sense of personal insecurity. Social and national disintegration create a tangible environment of fear in which even a single incident such as an assassination or a political act such as the recognition of an independent Croatia or Bosnia can spark periods of prolonged violence and retaliation.

Once engaged in a cycle of violence, the combatants will adopt and adapt their objectives, tactics, organization and material to suit the political and physical situation. However, one can make some broad generalizations about the milieu and motivations of rivals who take up arms against one another.

- ☐ The rivals live contiguously, yet there are cultural differences.
- ☐ Victims of subnational violence are as apt to be noncombatants as militia forces.
- ☐ Fear and terror can come to grip an entire people. A dread of losing power and possessions to a feared and gaining rival marks the emotional and psychological milieu. There is often an impulse to take preemptive vengeance against ancient rivals who may seem to have become benign, but are actually dangerous because they are gaining strength, different, and not trustworthy. Hardened, brutal, and implacable people motivated by ideals or plunder rise to the top. In other words, an ethic of "do unto others, before others do unto you" prevails.
- ☐ Externally derived (exogenous) ideals, expressions of support including calls for toleration, fair play, and compromise will be interpreted as weakness, and be met by scorn and defiance from the dominant combatant. In the pathological environment of subnational violence, arguments for peace based on cost-benefit analysis will rarely be persuasive. Only a tangible presence in the battle zone will lend weight to humanitarian appeals.
- ☐ A group or people that feels sufficiently threatened will obtain arms and in time will find innovative ways to employ force to insure what they perceive to be comes down to a question of their survival.

Results of Violence

Subnational ethnic and religious tensions evoke deep-seated prejudices. These tensions are prone to snap and erupt into protracted, relentless and bitter struggles often with no end. Consider such disparate groups as the armed Serbians, militant Palestinians, Irish Republican Army, and Tibetan nationalists. Each is fighting for a homeland, and each fears a technologically superior rival who shares neither traditions nor religion. Each group would like

to gain power, wealth and territory. They would like to experience a sense of security, superiority, and revenge that comes with subduing or destroying a hated rival—who in fact will never permanently succumb or go away.

Some peoples such as the Chatelaines, Scots, and Bretons are willing to settle for autonomy or self-government because they have not been grossly victimized or exterminated by those with whom they share the nation-state. For others such as some Orthodox Serbs, Catholic Croats, Muslim Palestinians, and Israeli Jews, there is a living and even immediate memory of atrocities or extermination. For such victims of terror and violence, fear and brutal acts of revenge are not irrational responses to their situation (as is often claimed by more distant and secure spectators). For these minorities there is a strongly felt belief that they can only acquire security, even survival, within the confines of their own nation-state. Therefore, just as the one set of nation-states is undergoing fragmentation and even extinction from unprecedented subnational pressures, people without homelands are creating new nations, also of questionable strength or viability.

A cycle of violence, revenge, and atrocities induces even stronger feelings of rage and insecurity, and more urgent demands for a nation-state capable of self-defense. While territorial adjustments, economic assistance, and peacekeeping operations can be vital for mitigating the intensity of the violence, they alone will not solve the causes of conflict. Minorities who have been subject to ethnic and religious warfare require reassurance, protection and the means for self-defense which often implies territory, sovereignty, and an armed force. At a minimum, threatened minorities must feel sufficiently secure so that they can separate the fear from the hatred; thereby they diminish the emotional



U.S. Army photo

A U.S. soldier witnesses the melee that may occur during Stability and Support Operations.

intensity that often characterizes inter-ethnic warfare. This will be a tricky, trying, and dangerous proposition since militant nationalists, irredentists, and fundamentalists, as well as indigenous security forces, will all have access to increasingly lethal weapons.

Peacekeepers' Dilemma

Soldiers in peace-related operations will often be immersed in a confusing and cruel psychological environment. Their chain of command will ask them to witness murder, rape, and mayhem without taking sides or intervening. However, that chain of command will have a global audience consisting of opinion makers, far from the scene of violent conflict, who will naturally balk at what appears callous and even cowardly official indifference to suffering and genocide. There will be public calls to intervene and to employ force in the service of humanity. Occasionally, these demands will prove irresistible despite cool calculations of national

interest to the contrary. The use of counterforce to punish the perpetrators of atrocities will become emotionally satisfying and probably even a short-term military necessity. The same public that wants to help a suffering humanity cannot articulate a vital national interest warranting large risks of casualties; thus an unresolvable tension between ends and means will assert itself.

When peacekeeping forces attempt to resolve these tensions by employing force against just one side, the mission then becomes one of peace enforcement or warfighting with all the attendant risks of higher casualties and a wider war. Adopting indigenous tactics of counterterror (such as those used by the French in Algiers) undermines soldier and national morale. The use of conventional military power will also be unlikely to resolve the tension between ends and means. Military use of limited conventional force, which is all the national interest will tolerate, will not subdue a minority which has known atrocities and ex-

termination. The ethnic warriors are even less likely to be overawed in the presence of a superior or prestigious power unwilling to use force.

The terrible dilemma for the peacekeeper is that he often represents the United Nations, which lacks serious military power, or a foreign country that lacks sufficient national interest—and therefore the will—to commit overwhelming force to subdue a highly motivated and even modestly armed group fighting for a cause, a way of life, or even revenge. Furthermore, even if they could muster overwhelming force, it would probably only add to the object of the force's isolation, insecurity and rage. It could drive the group underground and turn it temporarily to terrorism until it recovers. Yet there is an intrinsic American interest in a stable, democratic, and tolerant world reflective of American values and free of the anarchy and injustices that result in waves of illegal immigration, and racial and ethnic wars that will reverberate in the heterogeneous neighborhoods of the United States.

Peacekeeper Objectives

Accordingly, the central objective of the peacekeeper must be to diminish the deep sense of insecurity that feeds the cycle of violence. Comfort, reassurance, insurance and security must be the watchwords of the peacekeeper. When force is used, it should be for self-defense against a party applying military force to thwart the internationally sanctioned mission. Hence personal protective gear and precision weapons such as antismoke rifles are the appropriate accoutrements of the peacekeeper. Once the peacekeeper appears to have changed from an impartial actor carrying out a legal and essentially humanitarian mission to one engaged in war against one or another tribe, the soldier and the mission will have been placed in serious jeopardy. At that point, the force must recalculate the entire strategy, the costs, the ends and means, and explain them convincingly to the public. More and more—and for better or worse—in the coming age of information (and disinformation),



U.S. Army photo

A group or people who feels threatened will manage to obtain arms anyway.

the public will be the final arbiter of what happens next.

That most experienced of United Nations peacekeepers, Brian Urquhart, probably put it best:

For soldiers peacekeeping can be a thankless and unglamorous task.... A peacekeeping force is like a family friend who has moved into a household stricken by disaster. It must conciliate, console, and discretely run the household, without ever appearing to dominate or usurp the natural rights of those it is helping [emphasis added]. [At other] times... the peacekeeping function [is] more like that of an attendant in a lunatic asylum, and the soldiers (have) to accept abuse and harassment without getting into psychological or emotional involvement with the inmates. The feelings and reactions of peacekeepers must always come second to those of the afflicted. Thus they must often turn the other cheek, and never, except in the most extreme circumstances, use their weapons or shoot their way out of a situation. But they must also be firm and assert their authority in violent situations.

It requires discipline, initiative, objectivity, and leadership, as

*well as ceaseless supervision and political directions.*³

In the opinion of Danish Lieutenant General Hillingsø, an officer with extensive experience in peace-related operations, it is necessary to create specific units for peacekeeping operations or to establish a special school for the training of U.S. personnel who serve as peacekeepers. The causes and dynamics of ethnic and other types of violence belong in the curriculum. Coalition politics, uncertain chains of command, and the conflicting interests of the peacekeepers are environmental factors that need to be understood and simulated. Language and culture training, mediation skills, and the attainment of high tolerances for ambiguity, frustration, and non-lethal responses to vicious and violent situations may be the most demanding subjects of all.

Endnotes:

1. Michael Howard, *The Causes of War*, Cambridge, Massachusetts, 1983, p. 268.
2. Ibid., p. 269.
3. Denis J. Quinn, editor, *Peace Support Operations and the U.S. Military*, Institute for National Strategic Studies, 1994, p. 73.

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Force XXI



MI Officer Professional Development

by Major Timothy P. Kiely and
Captain Duane A. Dannewitz

Military Intelligence (MI) is in the midst of a technological and organizational revolution that will lead the Army into Force XXI. However, as intelligence systems progress and existing organizations evolve, we must ask if the MI officer is in a professional development cycle that is standing still. If this is true, will MI be able to send highly skilled officers to support commands from maneuver battalions all the way up through national agency levels? Will these officers be intelligence experts or "jacks of all intelligence trades"? The MI revolution must balance changes in traditional professional development models with the seemingly boundless potential of MI's new technology. Just as the organizations of today must change to adapt to new systems, we must reevaluate and modify MI officer professional development to meet the intelligence needs of the 21st century warfighters.

MI Revolution

As we enter the information age, the MI Corps and the way that it does business will change. The Corps, which is already more technically advanced than most Army branches, is widening the automation gap on the battlefield as it continues to field new intelligence systems. The Corps is meeting, and in some cases exceeding, its own expectations in demonstrating the incredible power and potential these systems have. Many senior Army combat arms officers support the

use of new MI systems immediately in the force. They expect to be the recipients of the timely, high-quality intelligence products that these systems have the potential to produce.

The Army is currently fielding systems such as the All-Source Analysis System (ASAS), Commander's Tactical Terminal (CTT), Joint Deployable Intelligence Support System (JDISS), and TROJAN Special Purpose Integrated Remote Intelligence Terminal (SPIRIT). These systems provide multiple windows into Army, joint, and national databases, and an improved means through which to pass vital information. The Joint Surveillance Target Attack Radar System (Joint STARS), unmanned aerial vehicles (UAVs), and an improved family of intelligence and electronic warfare common sensors can more clearly depict the battlefield situation than ever before.

New systems require new organizations, doctrine, and training methodologies. The MI Corps is keeping pace with the fielding of the new technologies and systems. We are accomplishing this by effecting changes in force structure and developing new organizations (direct and general support companies in the MI battalion, the analysis control element, and the Regional Signals Intelligence (SIGINT) Operations Centers). Revision of the 34-series field manual and better ways to train the force while staying cost-effective are some of the challenges the MI Corps has been working to meet.

Professional Development—The Weak Link

To complement all of these terrific changes to the MI Corps, we must also change the way we approach the professional development of our officers. MI officers must know and do so many things, we run the risk of becoming "Jacks of all MI skills, and masters of none." An MI officer whose career is a variety or "smorgasbord" of assignments, may perform well in the "right" jobs and get promoted. However, that same officer runs the risk of developing into a "generalist" that cannot be the subject matter expert at any level because concentrated experience is not available from which to draw. While this was not necessarily true in the past, the ever-increasing technical complexity of our branch will ensure this in the future.

This risk becomes more evident as the Army moves toward the technical arena proposed for Force XXI. MI officers serve in perhaps the most diverse branch in the Army, with six areas of concentration, and have the overarching responsibility to be an expert all-source intelligence officer. MI officers serve at echelons above corps (EAC) and echelons corps and below (ECB) in "pure" Army and joint assignments. In Force XXI, technical competence coupled with the ability to conceptualize and build intelligence support architectures will be more important than ever.

Today, few MI officers have identical career patterns. In many cases, this is unavoidable, but it creates a weak link in guiding MI officers toward mastery of all-

source and specialized intelligence skills that serve to make them more effective. The variety of locations, commands, and echelons where MI officers are key staff members is increasing, even in a time of cutbacks and closures. If MI is to adequately serve and support across the vast spectrum of assignments, the Corps must closely manage officers' careers and their professional development in order to assure their success.

A Short-Term Solution

Department of the Army (DA) Pamphlet 600-3, **Commissioned Officer Development and Career Management**, contains a comprehensive guide to MI branch qualifications for MI officers. (For more detail on this guidance, see the "Proponent Notes" in the January-March 1996 issue of the *Military Intelligence Professional Bulletin*.)

For junior officers, the procedure is straightforward. Following these criteria rounds out their careers so they are ready to serve in nominative assignments, pursue special schooling, or serve in their functional areas. Officers who meet the criteria and demonstrate solid performance will have an excellent chance of selection for promotion through company grades and to major. Selection boards often perceive officers who do not pursue the assignments necessary to meet these criteria (even with outstanding performance files) as being unqualified or less qualified for promotions.

Establishing the branch qualification for field-grade level officers is much more difficult. Currently, Joint, Department of Defense (DOD), and table of distribution and allowances (TDA) assignments take up more than two-thirds of all of the assignments requirements for MI majors. Joint assignments are 36 months long. This makes it difficult for MI majors to complete positions that will make them more competitive for

promotion, command and schooling, S3, deputy G2 or G2.

The MI proponent has proposed an initiative that would include MI in the joint critical operational specialties. This inclusion would make most joint and DOD MI positions 24-month tours, allowing majors to have at least 12 months in troop assignments prior to or after serving in a joint or DOD billet. Overall, this change will get MI majors back to troop units and allow better MI support to corps-, division-, and brigade-level units while allowing MI majors to serve in key professional development positions.

21st Century Solutions

The MI Corps realized the necessity for change at the end of the "Cold War" and moved quickly to adjust its mission focus to fit what has become the hallmark concept called Force XXI. This process has caused the MI Corps to revalidate and restructure officer positions in both table of organization and equipment (TOE) and TDA units. If the MI Corps will continue serving ECB and EAC echelons, from maneuver battalion S2 positions through the National Security Agency Director, then MI must enhance our professional development opportunities and make career management more restrictive.

Currently, the Army assigns the majority of new MI Officer Basic and Advanced Course graduates to troop units.

Focusing the career paths and choices that MI officers make will be more important than ever

As most MI officers approach the seven- to eight-year mark in their careers, they have spent three to six years in troop assignments developing a sound "Army" base. Most have already commanded and are considered MI branch qualified. At this point of MI officers' careers, they must choose

from several career paths. MI has six areas of concentration serving at various echelons. We propose three "career tracks" to allow officers to specialize in one area, while remaining familiar with all aspects of the intelligence battlefield operating system (IBOS).

Tactical MI Career Track. Most officers, in conjunction with Army or personal choice, will remain in "main stream" assignments. The Army will offer some functional area (FA) designations and they will then serve in one or more assignments in their FAs. The majority of MI officers will work in ECB units, Training and Doctrine Command (TRADOC) assignments, and joint and DOD assignments, on the DA staff, and in other nominative assignments. This group forms the pool of future division, corps and Army G2s, and ECB MI battalion and brigade commanders.

Strategic MI Career Track. During the same period of their careers, other officers can make choices to attend specialty schooling that will train them to serve predominately at EAC. Some officers in this track will earn assignment to the Post Graduate Intelligence Program (PGIP), the National Systems Development Program (NSDP), and the Junior Officer Career Cryptologic Program (JOCCP). These officers will serve in utilization assignments and at EAC, TRADOC, and in joint, DOD and Army staff positions. This group will produce our future leadership for Intelligence and Security Command (INSCOM) battalion and brigade commanders, Regional SIGINT Operations Center (RSOC) commanders, TRADOC system managers, and senior EAC intelligence staff officers. Because of their specialty training, these officers will not serve in functional areas or nominative assignments, and most likely will not return to ECB units.

Technical MI Career Track. Finally, some MI officers will compete for selection to attend advanced civilian schooling

(ACS). These officers will acquire their ACS degree through a variety of means, either at accepted public institutions or at such military colleges as the Naval Post Graduate School. Officers in the ACS program will receive primarily "hard science" degrees to fill MI requirements at EAC, joint and DOD levels, the DA staff, and TRADOC. This group would produce MI EAC battalion and brigade commanders, TRADOC systems managers, combat developers, EAC intelligence staff officers, instructors at the U.S. Military Academy, and the scientists who will develop and field new MI systems leading us into the information age. Because of their specialization, these officers will not return to ECB units. MI must continue to stress the need to send its officers for advanced technical degrees that will continue to benefit the Corps long after their initial utilization tours.

The MI Corps must get the most "bang for the buck" out of our specialty trained officers (strategic and technical tracks) through repetitive assignments in their specialty areas. We groom the majority of this group of officers to operate predominately in the EAC, joint, and DOD arena. Our goal is to develop officers who can better compete for these assignments with sister-Service intelligence officers (who have no requirement to serve in ECB-type units), and thereby become more experienced and adept at EAC operations. At the same time, it is important for us to develop a cadre of officers focused on ECB that will support the combat arms commander.

The Future for the MI Corps

Today's MI Corps is serving effectively at all echelons. Increasing joint, DOD, and nominative requirements; poor field-grade selection rates; voluntary exit programs; early retirement programs; and increased new-system fielding all continue to stress the system. MI will continue to fill all of

our joint, DOD, and nominative positions and we continue to send fully qualified officers to ACS and specialty programs such as PGIP and JOCCP. However, the stress on the system is beginning to show. The increased operations tempo and need to "do more with less" is taking its toll. The MI Corps must refocus the current officer career management and professional development system to get the best return on our training investment.

Even with minor changes to the system, the MI Corps still needs to take a hard look at its requirements. In these days of drawing down the Army, it is difficult for many senior officers in other branches to understand how the ninth largest Army competitive category branch can be the second largest officer branch (behind infantry). This perception is intensified when fewer than 50 percent of the maneuver brigade S2s are majors, and captains fill many of the major grade-level positions on division and corps staffs.

Conclusion

The Army drawdown originally scheduled to end in 1995 has been officially extended to 1997. The current target of ten divisions and four corps may become even smaller if the Army incrementally extends the drawdown to 1999 or beyond. In Force XXI, the force model may change even more with the development of the Mobile Strike Force. MI must evaluate all future change possibilities and be ready to refine our requirements to match the evolving Army. Until then, the professional development life-cycle model MI currently uses will remain in effect.

The future is uncertain but some type of change is inevitable to both the Army and MI. Our branch needs an aggressive, logical, proactive approach to the realignment of officer professional development. MI is staking much of its reputation on Force XXI and the supporting Intel XXI. If MI officers are not absolute masters of

the intelligence battlefield operating system at their level of assignment, they cannot make significant and unique contributions to their units. Focusing the career paths and choices that MI officers make will be more important than ever. The MI proponent is researching and analyzing all aspects of a successful MI officer's career so that officers can apply these principles to their own paths in the MI Corps.

Many combat arms officers want new MI systems such as the UAV included in their TOEs so that they can direct the system to conduct "sensor to shooter" operations. In an ever-shrinking Army, branches attempting to save billets will look for "bill payers" from other branches. Because the new MI systems are very good, many have begun to think that perhaps the systems doing the work and satisfying intelligence requirements do not require MI officers. We in the MI Corps know that nothing could be further from the truth. However, if we send "Jacks of all trades" to support commanders instead of intelligence experts who make unique contributions to their organizations, we run the risk of making MI officers expendable at various levels of command. We must develop competent, focused MI officers who, in Force XXI, will take the MI mission to new levels of excellence and will sustain the vital contributions MI already makes to the force.

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Intelligence and the Peacekeeper in Haiti

by Major Denver E. McPherson

Editor's Note: The term "Operations Other than War" used throughout this article is no longer considered to be doctrinally accurate. Precise terminology while discussing peace keeping operations, humanitarian assistance, and operations in aid of civil authorities should replace the term "OOTW." A message from the Joint Staff, DJS, 311514Z Aug 1995 released this guidance.

The key to successfully supporting commanders with intelligence is in knowing what information to provide, how to obtain the information, the proper processing of that information, and the correct dissemination of the information. The proper implementation of these objectives, either directly or indirectly enables the commander to make an informed decision that influences the outcome of the mission. The continued success of the U.S. Forces Haiti (USFH) Joint Intelligence Center (JIC) is a result of balancing these objectives.

The J2's role in the intelligence cycle is dynamic. The commanders in Haiti have driven the intelligence effort daily and relentlessly. This is the cornerstone of intelligence doctrine and is a requisite for directing what information is necessary for sound decision-



U.S. Army photo

making. How the JIC is collecting information is the J2's responsibility. In Haiti, this involves the careful balance of gathering information from all sources to support several different objectives, while supporting the operational and tactical needs of several commanders. Processing and producing the information into usable intelligence are as critical as gathering the information. The J2 accomplishes the disseminating of intelligence to the right customer through careful management of information coupled with an understanding of the needs of the user. He balances the needs of several different commanders against his section's capabilities and limitations.

In Haiti, the J2 must balance the need for operational as well as tactical intelligence objectives. The key to successfully completing the intelligence cycle is contingent upon meeting four conditions:

- ☐ Commanders must drive the intelligence effort.
- ☐ There must be a careful balance between tactical and operational intelligence.
- ☐ The JIC must have focused objectives.
- ☐ The JIC must perform as a synergistic team.

The Commanders Drive Intelligence

Initially, a provision of successful intelligence support depends on whether the commander drives the intelligence effort. This phase of intelligence must not be compromised. The commander driving intelligence is the cornerstone in developing sound intelligence support. The commander must understand the capabilities and limitations of his intelligence assets, and what he can expect from those assets to maximize their capabilities. In Haiti, this is critical since the J2 essentially works for three separate and, at times, differently focused commanders (see Figure 1). The USFH J2, U.S. Support Group Haiti (USSPTGRPHAITI) J2, and the JTF J2 are the same person. The J2's initial focus encompasses answering two sets of pri-

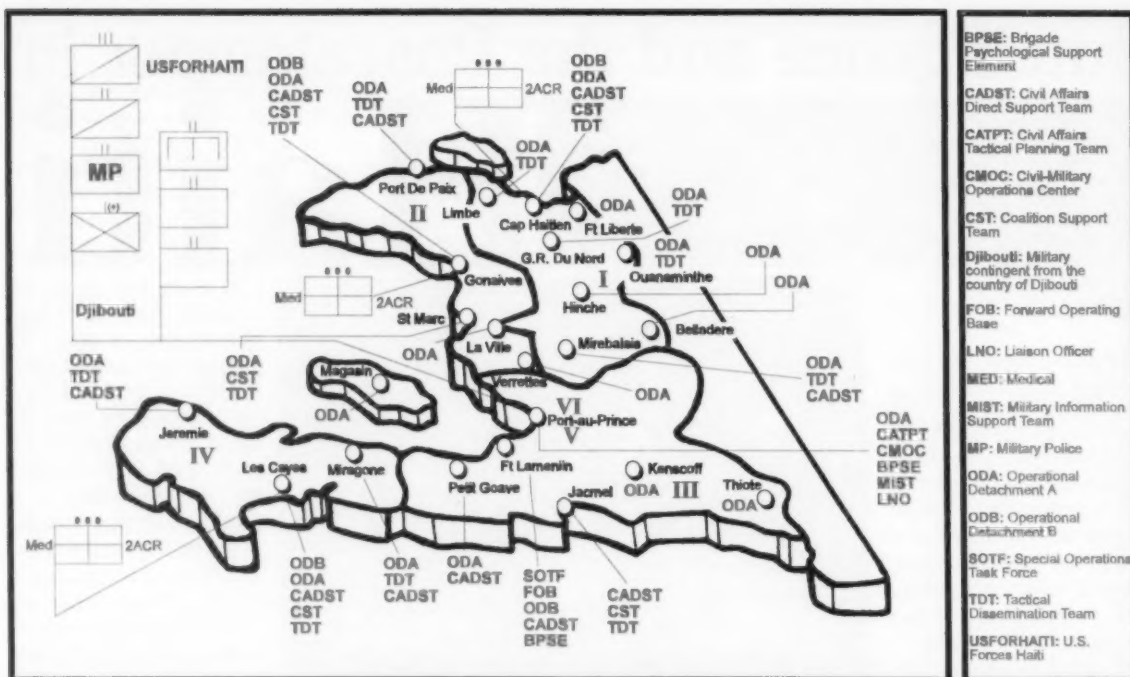


Figure 1. Disposition of U.S. Forces Haiti.

ority intelligence requirements (PIR), one set for the USFH Commander and one set for the JTF Commander.

The USFH Commander essentially drives operational-level intelligence. His focus includes the entire country of Haiti. He must ensure support for all U.S. forces in Haiti, to make sure that the theater campaign is properly executed.

The J2's support for the USSPTGRPHAITI Commander is more of a balance between operational and tactical intelligence. Since the Commander of the USSPTGRPHAITI also serves as the USFH Deputy Commander, his interests focus in two different areas. He is currently responsible for standing up the U.S. Support Group Haiti, planned to come on line in early 1996, so he plays a critical role in focusing the J2 toward these two different objectives. The third commander who plays a role in driving the intelligence process is the JTF Commander. Zone V encompasses the majority of the Haitian capital, Port-au-Prince. His focus is pri-

marily tactical although he is keenly attuned to the operational objectives of the other two commanders as they are often the same.

A J2 who works for three separate commanders is inherently challenged. This would be extremely difficult if the command structure was not cohesive. In Haiti this is not a problem. Working relationships between the commanders facilitate the intelligence process by creating consensus on common intelligence objectives. Every morning the commanders meet within the JIC and review the latest information and intelligence. This is an informal process where each of the commanders reviews all the information from the previous day. This review includes the daily intelligence summaries from the United Nations (U.N.), USFH, Zone V, the Cavalry Squadron, the Military Police (MP) Battalion, and the Special Operations Task Force. They also review information papers from Force Protection, higher headquarters, and other agencies. The commanders

review this information asking questions and discussing analysis with the J2. The morning intelligence update is an interactive process between the commanders and the J2. The questions and answers that come out of the discussions make the meetings informative and also serve as the basis for information requirements and taskings. This meeting usually takes about an hour. Every day, except Sunday, the commanders have the undivided attention of the J2 wherein they drive the intelligence effort. It is important to note that the morning update is an informal process. The commanders do not require any special briefings. This indicates their trust in their intelligence support.

In addition to these morning meetings, the commanders receive formal briefings every Saturday. These briefings focus on analytical overviews of specific geographical regions of Haiti or on specific subjects. The commanders indicate the focus for the brief or any special emphasis on a particular subject or area in

which they are interested. Twice a month, the JIC analysts conduct the briefing, while rotating with either the MP Battalion or the Cavalry Squadron S2s brief their areas of operation.

Operational versus Tactical Intelligence

Doctrine for war compliments that for operations other than war (OOTW). The levels of war, strategic, operational, and tactical apply as much to peacekeeping in Haiti as they do to a full scale Operation DESERT STORM. Operational-level intelligence provides support to that vital link between strategic objectives and tactical employment of forces. Tactical operations are executed to achieve operational results. Tactical-level intelligence provides support to the commander who is responsible for obtaining those results.

The J2 has the responsibility for supporting both operational and tactical intelligence. Successfully balancing these needs takes an understanding of these needs against the current capabilities of the JIC. The capabilities of the JIC, when the JTF first "stood up" in Haiti, were far more dynamic than what is seen today. The functions are essentially the same but with fewer personnel and systems.

Balancing intelligence requirements against the J2's capabilities is the essence of the J2's challenges. Understanding these requirements starts with the commander's PIR. The J2 is responsible for managing two sets of PIR, one for the USFH Commander (operational) and one for the JTF Commander (tactical). The J2 balances core intelligence functions such as indications and warning analysis, reporting, threat assessment, planning and directing collection assets, all-source analytical reporting, and target development and nomination, in answering these PIR.

The USFH Commander, who is subordinate to the Commander in



U.S. Army photo

Maintaining a secure environment for elections was not an easy task. Elections in Haiti had never before occurred without a large amount of bloodshed.

Chief U.S. Atlantic Command (ACOM), focuses on the operational objectives of Haiti. In supporting this, the operational intelligence needs at times complement the tactical intelligence needs. When you compare the two, they are very similar yet the USFH Commander's PIR reflect more of a holistic view of operations in Haiti. The JTF Commander's PIR, although similar, take a more focused view of Zone V activities. In essence, collection against the tactical PIR is managed in more detail. Analysts accomplished essentially the same goal but with two different levels of detail.

As an example, one of the main tenets for which U.S. forces were brought to Haiti during the reinstatement of President Jean-Bertrand Aristide was to ensure free and fair elections from legislative through presidential level. This involved more than 10,000 candidates running for more than 2,100 local, state, and national offices. For these elections to successfully occur, U.S. and U.N. forces needed to help maintain a secure and stable environment prior to, during, and after the elections. Since elections of this magnitude had never occurred without a large amount of bloodshed, there was a major focus in effort in meeting the JTF Commander's operational goals.

The JTF Commander's primary goals, unequivocally stated since arriving in Haiti, have been vigilance in force protection, maintenance of a secure and stable environment, and safety. All of these goals are reflected in his PIR. The J2's objectives to ensure proper intelligence support were dual; the focus was on the geopolitical factors of the elections as well as the tactical intelligence needed to support the troops on the ground. There was a carefully thought-out plan in the collection, processing, and the dissemination of information during this period. The J2 focused on an extensive political intelligence preparation of the battlefield (IPB), which included names of primary candidates, headquarters of the major party, electoral headquarters, etc. At the organizational level, there was a need to ensure that the commanders were aware of the dynamic and constantly changing political situation within the country. At the tactical level, there was a need to ensure that there were fully developed target folders on potential "hot spots" throughout the country. As well, there was a need for a more focused IPB of the Zone V area of operations to include the electoral headquarters, lines of communications, road conditions, attitudes of workers and voters in selected regions of the city, and

potential problems that may occur during the elections.

Balancing the organizational and tactical needs of these differently focused commanders is an art which an intelligence officer can learn not only through books, but by experience too. The success of the JIC in keeping the commanders informed during these times took a well-synchronized JIC with a clear focus.

Focused Objectives

Focusing the JIC means conservatively using the assets available, since at any given time there are more than 100 current taskings or requirements levied on the J2. Not all of these requirements are intelligence oriented (the majority are), but are requirements that must be accomplished either daily, weekly, monthly or by suspense. Originally approximately 144 personnel supported intelligence for the commander. Currently there are 25 people to accomplish the mission. In addition, the J2 must focus the joint interoperability of these human resources in order to ensure timely, accurate, relevant, usable, and complete intelligence support to the operational and tactical requirements.

The intelligence architecture has undergone changes in the last year based on mission requirements. Under the original JTF intelligence architecture, the JIC comprised (see glossary) JDISS, JWICS, STICS, TROJAN SPIRIT, MITT, FAST, MSE, INMARSAT, ASAS-Warrior, GMF circuit, packet-switch network, LAN, and a WAN (see glossary). Currently, systems directly supporting the JIC's intelligence architecture include the JDISS, JWICS, INMARSAT, OPX, DSN, GSA, HOTS, SINCARS (frequency-modulated radio), Motorola Saber System (ultra-high frequency), LAN, and GSA. Additionally, systems that are at the disposal of the JIC (if needed to support the intelligence architecture) include the GENSER VTC, DDN, TACSAT, WWMCCS, the



Quick Reaction Force patrolling the street of a small Haitian town north of Port-au-Prince.

Photo provided by author

"U.S.A. Direct" AT&T commercial service, and the TELCO-Haitian local commercial line. The loss of some of the systems and the addition of others has not degraded the capabilities of the JIC. Instead the JIC reconfigured to support operational and tactical intelligence operations in support of USFH under the U.N. Mission in Haiti. With these limited resources, the J2 cannot afford to waste the JIC's time on objectives that are not clearly defined. Every member of the JIC must work toward the proper end-state(s). There are ongoing requirements to gather information at many different levels. This requires using all assets, personnel, and equipment efficiently and to their full capability.

In order to effectively focus the JIC, the J2 ensures that each section is fully aware of the primary objectives for both current and long-term operations. The JIC is broken down into J2 Operations (J2 OPS), Collection Management and Dissemination (CM&D), the All-Source Production Section (ASPS), the Tactical Feedback Force Protection Coordination Authority, Special Security Officer, and the JIC Watch Officer (JICWO). At any given time, these sections are working together toward the same end-state yet may also be focusing in different directions on entirely unrelated projects.

During the previous elections, J2 OPS kept the commander and J2 updated on the current situation. At one point, the U.N. alerted the Quick Reaction Force

(QRF) and gave them the mission of going to a major road block along Highway 100, north of Port-au-Prince. This road block was in an area that was not previously targeted as a potential hot spot. The CM&D immediately began pulling imagery of the area so that the QRF could use it in its analysis of the area to identify what the terrain and road conditions offered. The ASPS was quickly analyzing historic databases for indicators of possible problems within the area and analyzing the possibilities of any organized threat toward U.N. forces on the ground.

The J2's role was to focus specific personnel on the immediate objective, while keeping ACOM, the United Nations, and subordinate commanders informed and still developing intelligence for other tasks. They successfully accomplished this because everyone understood the objectives and the management of each section's focus. Focus alone does not ensure success. The end-state is only found through the management of focus, combined with teamwork.

Teamwork

Teamwork is an essential ingredient for the success of any operation involving two or more people working in concert to achieve the same goal. This is especially true within a JIC. Each person must not only understand the desired objectives but also how to achieve that end-state. With the myriad of backgrounds and skills that a joint operation

brings, there has to be a cohesiveness within the JIC that the J2 must achieve. The current tour of personnel assigned to the USFH JIC ranges from 90 to 179 days. Consequently, on-the-job training is a necessity and cannot be accomplished without absolute teamwork. Cross training is a necessity as limited personnel with a myriad of different skills work together with complex systems daily. All four Services are represented within the JIC; the U.S. Army comprises the majority. The J2 expects all soldiers, marines, airmen, and sailors to use most of the systems (supplied by several different tactical, operational and national agencies). It is a requirement that almost everyone in the JIC have a basic overview of how these systems operate and where the systems fall within the overall structure of the JIC architecture.

The interoperability of all these forces is just as much a challenge for the J2 as ensuring that they are properly focused. At any time, the CM&D, ASPS, or J2 operations personnel must be able to fill in for the JICWO and vice versa. There are only two table of distribution and allowance (TDA) slots for the JICWO. This position is staffed 24 hours a day since the JICWO provides the primary connectivity with the Atlantic Intelligence Command (AIC). These soldiers work 12-hour shifts, 7 days a week. The J2 gives them a day off periodically to ensure that they receive the appropriate breaks; this requires that another person from within the JIC "stand in" for the JICWO. This goes for any other section within the JIC as well. Accomplishing this is not possible without cross-training and teamwork.

Conclusion

USFH is the model of successful intelligence operations in an OOTW scenario. This success is attributable to properly managing the following four factors: the commander drives intelligence, balancing the effort, focused objectives, and teamwork. Although

many more factors affect the intelligence operation, without the commanders' driving the intelligence effort and the J2 balancing the commanders' objectives and ensuring the JIC team works synergistically, these other factors would not positively effect the outcome of the intelligence support effort.

The Commander Drives Intelligence. In Haiti, the commanders do drive the intelligence effort. This clearly enables the J2 to effectively start the support process and properly focus the effort. Since three commanders are driving this effort, there is a potential for a disconnected and frustrating process. Not in Haiti. The commanders work toward the same end-state, synchronizing operations and their guidance and allowing the intelligence effort to be more responsive to their needs.

Balancing the effort. The intelligence cycle within the JIC focuses on both tactical- and operational-level intelligence support. This is a process requiring a balance of support. Since these objectives overlap, and in many cases are not clearly defined, the J2 must be cognizant of the potential for a dichotomy in support. This balancing of objectives and integration of one to support the other is a task that the J2 must constantly manage.

Focused Objectives. While ensuring that the JIC properly supports the commanders with their sometimes different objectives, the J2 must also properly focus his limited staff and systems. With the myriad of national, operational and tactical tasks levied on the JIC, the J2 must focus and ensure understanding of the end-state. Without this focus, the different sections within the JIC would not understand their roles within the intelligence architecture and thus would not support each other, threatening lives, and the mission.

Teamwork. In order to ensure successful intelligence support,

this team must not only understand its roles within the intelligence cycle but must also have a good understanding of the other systems and their responsibilities. Bringing together personnel from each of the other Services and requiring them to accomplish many differently focused daily tasks, requires a cohesive operation emphasizing teamwork.

Glossary

ASAS: All-Source Analysis System
AT&T: American Telephone and Telegraph
DDN: Defense Data Network
DSN: Defense Switching Network
FAST: Forward Area Support Terminal
FM: frequency modulated (radio)
GENSER: General Service (communications)
GMF: Ground Mobile Forces (circuit)
GSA: General Service AUTODIN
HOTS: Haitian Operational Telephone System
INMARSAT: International Marine Satellite
JDISS: Joint Deployable Intelligence Support System
JIC: Joint Intelligence Center
JICWO: Joint Intelligence Center Watch Officer
JTF: Joint Task Force
JWICS: Joint Worldwide Intelligence Communications System
LAN: local area network
MITT: Mobile Integrated Tactical Terminal
MSE: Mobile Subscriber Equipment
OPX: off-premises extension
SABER: Motorola handheld UHF radio with repeaters
SCI: sensitive compartmented information
SINCGARS: Single Integrated Channel Ground and Airborne Radio Subsystems
STICS: Scalable Transportable Intelligence Communications System
TACSAT: tactical satellite
TROJAN SPIRIT: TROJAN Special Purpose Integrated Remote Intelligence Terminal
UHF: ultrahigh frequency
UNMIH: United Nations Mission in Haiti
USFH: U.S. Forces Haiti
USSPTGRPHAITI: U.S. Support Group Haiti
VTC: video teleconference
WAN: wide area network
WWMCCS: World-Wide Military Command and Control System

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FORTITUDE SOUTH:

D-DAY DECEPTION

by Major Richard G. Ricklefs

"In wartime, truth is so precious that she should always be attended by a bodyguard of lies."

—Winston Churchill

At the Teheran conference in November 1943, the "Big Three"—Franklin Roosevelt, Winston Churchill, and Joseph Stalin—approved an outline of deception operations for the D-Day invasion of Europe. That plan, originally known as JAELE, was named after a treacherous woman of the biblical Old Testament. However, in December of that same year the Allies renamed it BODYGUARD.¹ The deception operation was a stunning success and helped ensure the victory of the greatest invasion force the world had known until that time.

Five-Fold Deception Plan

The strategic nature of BODYGUARD can be seen in its five main deceptions. VENDETTA and FERDINAND were false invasions in the western Mediterranean, and IRONSIDE was an invasion of France from the Bay of Biscay. ZEPPELIN was an equally false invasion of the Balkans, and was so successful that historians continue to debate Churchill's desire to invade the Balkans rather than France. The fifth deception, FORTITUDE, had two parts: FORTITUDE NORTH was the invasion of Norway, and FORTITUDE SOUTH was an invasion of France at the Pas de Calais.²

While each deception operation had a degree of success, FORTI-

TUDE SOUTH was the key deception of when and where the D-Day invasion would actually occur. It made sense for a variety of reasons. The distance from Dover to the Pas de Calais was the shortest across the notoriously difficult English Channel.³ It was the shortest route to the heart of Germany, which resulted in quick turn-around time for ships and air cover. There were three large harbors in the area (Dunkirk, Calais and Boulogne); the beaches and terrain around the Pas de Calais were ideal for supporting such an invasion. Also, FORTITUDE SOUTH had the advantage of being the plan Adolf Hitler wanted to believe would occur.⁴ Indeed, Hitler had planned to use the same route in the opposite direction for Operation SEA LION, the aborted German plan to invade Great Britain.

Setting the Stage

Part of the difficulty in organizing forces for an invasion, and consequently the need for a deception plan, was where to physically locate the forces prior to the assault. Because the Normandy coast was the real target, forces deployed primarily in Devon and Dorset in southern England. If the invasion were to occur at the Pas de Calais, the Allied Forces would have used Kent, located in England's southeast corner, as a staging area. Ultimately, the Germans had to be tricked into believing there was an invasion force building up in Kent.

The "fictitious" invasion force was the First U.S. Army Group, com-

manded by Lieutenant General George S. Patton. He was an excellent choice because he was flamboyant and the German Wehrmacht regarded him highly. Even though he commanded the Third Army, he was able to create the impression needed to support the deception operation. In fact, when the Third Army moved to France to assist in the breakout, a new commander had to be identified to continue the deception. The explanation for Lieutenant General Patton's "demotion" to Army commander was that it re-





sulted from General Eisenhower's "displeasure" at some of his "indiscretions."⁵

A unique example of human deception in FORTITUDE SOUTH, involved German General Hans Kramer. He was captured in North Africa but became ill. Thus, the Allies decided to repatriate him to Germany via Sweden. On the way from Wales to London, the route took him through the heart of the invasion force. He saw elements of the real Allied Force, but was misled about his location. He was told that Dover, Kent, was "just over the hill," placing the invading force where the Allies wanted Hitler to believe it was.⁶

Operationally, the actual conduct of bombing raids supported the deception plan of FORTITUDE SOUTH. The Allies bombed the Calais region more severely than the Normandy area. The Allied deception bombers deliberately avoided key radars and radio intercept sites to ensure the enemy would see them.

Deceiving the Collectors

Germany had three primary means of collection prior to the actual invasion: aerial reconnaissance, spies, and signals intelligence. FORTITUDE SOUTH used all of these means to "paint the picture" the Allies wanted the Germans to see. They allowed the Germans to work methodically to become more convinced of the Allied "illusion." Each intelligence method had some limitations in its ability to collect information. In every case, however, the Allies endeavored to release only pieces of a well-orchestrated puzzle that would make sense in the context of the overall collection effort.

Aerial Reconnaissance. The Luftwaffe's defeat in the Battle of Britain limited its aerial reconnaissance capability. However, they still could conduct some reconnaissance flights, so FORTITUDE SOUTH had to ensure that imagery would support the deception plan. This was accomplished primarily through the use of "dummies." The deception force

constructed and used dummy tanks, oil storage depots, airfields, and landing craft with amazing success. They created vehicle tracks and lit notional airfields to ensure the scene appeared real to any observer. Not all of these deceptions were successful. The German pilots discovered and avoided virtually all the fake airfields.

Spies and Double Agents. The use of spies can perhaps be best seen in the use of double agents. It is now believed that all spies were either caught or "turned" to support the deception. The organization controlling these activities was the Twenty Committee (XX), or "Double Cross" Committee. The most successful double agent, "Garbo," was able to influence German thinking from Adolf Hitler on down. Field Marshal von Rundstedt, in reports of meetings he had with Field Marshal Keitel, specifically cited "Garbo's" reports. These reports supported the belief that the Pas de Calais was the main target of an Allied invasion. The Twenty Committee was very effective; its success was evident in German radio intercepts that the Allies verified through ULTRA. (Editor's Note: ULTRA was the British code name for intelligence gathered by decrypting German wireless communications enciphered on the Enigma machine during World War II.) Double agents clearly influenced the German decision to wait for an attack at the Pas de Calais.

Signals Intelligence. Signals deception played a major role in the overall plan of FORTITUDE SOUTH. To convince the Germans that the Allies were forming an Army in Kent, they created radio traffic that was commensurate with such activity. The U.S. 3103rd Signal Battalion and the British 3118th Signal Service Group provided this support. Many of the personnel involved in this activity did not have the training to record radio messages familiar to the enemy. Therefore, they made a great effort to record real exercise radio traffic on the new magnetic wire recorders; then they fabricated scripts for timely message transmittals. The signals deception included naval and air force opera-

tions to complete the picture of the invading force.¹⁰

Another signal-related deception occurred over the English Channel on D-Day. The Allies had used chaff to deceive radars in bombing raids over Germany. To support the D-Day deception, aircraft used this same chaff, called "window," to simulate the ships of an invasion fleet headed toward the Pas de Calais. The aircraft flew in progressive orbits toward France to depict a fleet moving at eight knots. Considerable analysis went into ensuring the deception worked within the limited carrying capacity of the aircraft.¹¹

Germany had the additional problem of multiple and competing intelligence collection agencies. Their intelligence architecture was redundant and had limited checks and balances outside each intelligence organization.

Conclusion

Wars are not won by intelligence or deception, but rather by a synergistic combination of all aspects of the force. Evidence of the success of FORTITUDE SOUTH can be seen in Hitler's reaction to the D-Day invasion. His fear of an attack at the Pas de Calais was such that the German Army in that area, the 15th, was only permitted to partially redeploy to Normandy on 28 July,¹² far too late to have a decisive impact on the battle. FORTITUDE SOUTH was an important aspect of the synergistic effect that had an unquantifiable, yet very positive affect on the D-Day invasion.

Endnotes

1. Brown, Anthony Cave, *Bodyguard of Lies* (London: W.H. Allen & Co. Ltd., 1976), pp. 9-10.
2. Raymond, John, *Fortitude: South Kent's Wartime Deception* (Kent, England: Arts & Libraries Publications Ltd., 1994), pp. 8-9.

3. Just prior to D-Day, the weather played an important part in the deception plan of FORTITUDE SOUTH. The difficult weather led the German High Command to believe the invasion could only occur at a later date, when weather conditions improved.

4. Haswell, Jock, *The Intelligence and Deception of the D-Day Landings* (London: B.T. Batsford Ltd., 1979), pp. 33-34.

5. Breuer, William B. *The Secret War with Germany* (Shrewsbury England: Air-life Publishing Ltd., 1988.), pp. 234-235.

6. Haswell, pp. 150-151.

7. Raymond, p. 50.

8. *Ibid.*, pp. 60-61.

9. *Ibid.*, pp. 32-36.

10. *Ibid.*, pp. 56-57.

11. *Ibid.*, pp. 70-71.

12. Haswell, p. 184.

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Linguists: LingNet Is Now on the Internet

LingNet, the first on-line computer Bulletin Board System devoted to serving the needs of the military linguist, is now accessible via the Internet. The LingNet operates out of the Defense Language Institute Foreign Language Center (DLIFLC) in the Presidio of Monterey, California. It has provided language-related services not only to DLIFLC students, instructors, and field sites, but also to other military and civilian organizations and agencies that desire foreign language information. According to the System Operator, LingNet has nearly 3,000 users on all continents except Antarctica.

Services include foreign language programs (such as word processors, instructional programs, and games), foreign language materials (survival kits and other items), DLIFLC information, satellite communications for learning (SCOLA) schedules, the *GLOBE* (DLIFLC's monthly magazine), and a user message service. With LingNet's messaging center, you can leave private mail for other users or read your private mail, read or leave public messages in the forums, or even teleconference with other on-line users.

In the files section, you will find all the LingNet's files—from games and word processors to sophisticated computer-assisted study programs—for a variety of languages. The files are grouped by language, or by geographic area for the less common languages. There are also directories for generic utilities useful in foreign language study, teaching, and processing.

In addition, LingNet offers other services. They have 20 pages on the WorldWide Web, one for each language or language group. You can access the Web pages through <http://lingnet.army.mil>. There is a commercial page which provides the links to commercial language services providers. They also have a general resources section which lists colleges, other foreign language interest sites, and multiple-language sites.

To obtain access to the LingNet, set your communications program to 8N1 (8 data bits, parity none, 1 stop bit). Then dial DSN 878-6120, commercial (408) 242-6120, or toll free at 1-888-DOD-LING (1-888-363-5464). [Note: 888 is a new toll free number like 800; it is not an area code.] At the prompt, type **lingnet** to access the LingNet bulletin board system. For Internet access, Telnet to lingnet.army.mil (or 160.133.250.007) to establish your account.

Users with difficulties can request a chat with the System Operator (Technical Sergeant "Red" Lloyd, U.S. Air Force) from 0730 to 1630 Pacific time by typing "/p Sysop" (without the quotes). Other ways to contact the System Operator are through E-mail (lloydred@pom-emh2.army.mil), commercial voice (408) 242-5180 and DSN voice 878-5180, or FAX (ATTN: LingNet) commercial (408) 242-6040, or DSN 878-6040.

CONCEPTS & DOCTRINE

Introduction to the Intel XXI Concept

by Captain Neal J. Wegner

Currently slated for a late spring 1996 publication, the Intelligence XXI concept will be the Army's operational concept for 21st century military intelligence (MI) operations. It depicts how the intelligence battlefield operating system will support warfighters. The concept describes the role intelligence will play in reducing the uncertainties and risks inherent in the conduct of decisive operations in the 21st century. It also identifies how the Army will organize, equip, train, and employ the intelligence battlefield operating system as an integral part of our future force.

Background

An analysis of future MI requirements as defined in Training and Doctrine Command (TRADOC) Pamphlet 525-5, *Force XXI Operations*, related publications, and on-going Force XXI activities led to development of this concept. In January and February 1995, respectively, participants at the 21st Century Technology Symposium and Worldwide Intelligence Conference reviewed the initial tenets. Then, in May 1995, the Deputy Chief of Staff for Intelligence published the Army's vision for intelligence support to Force XXI—*INTEL XXI: Strategy for the 21st Century*. The concept has been further refined based on the insights gained from—

- ☐ The series of Advanced Warfighting Experiments and demonstrations completed in 1995.

- ☐ The results of the TRADOC Force XXI redesign analysis.
- ☐ TRADOC's series of Division XXI How to Fight Seminars.
- ☐ The 1995 Information Operations Wargame conducted at Fort Huachuca in November 1995.

Developmental Factors

The highly complex strategic environment in which commanders will operate has significant implications for future military operations and the intelligence system that will support them. The U.S. National Military Strategy focuses now and into the future on regional conflicts; crisis response; power projection; joint, coalition, and interagency operations; and a wide variety of ambiguous threats. Other factors that will influence the development of the intelligence force over the next two decades include—

- ☐ Reduced defense spending.
- ☐ Significant growth in information technologies and digitization.
- ☐ Reduced forward presence.
- ☐ Nontraditional missions (such as peacekeeping, humanitarian assistance, and so forth), also called "stability and support operations."
- ☐ The proliferation of weapons and technology, which could make our potential adversaries

more lethal and dangerous than ever before.

Recent operations in Southwest Asia, Panama, Somalia, Rwanda, Haiti, and Bosnia have given us a preview of the challenges that lie ahead and how the future force will operate. They illustrate the complexity of force projection operations in both mid-intensity conflicts and nontraditional stability-and-support-operations settings and amplify the critical role technology will play in the future. Finally, they reinforce the fact that conducting information operations to gain information dominance will be critical to the successful conduct of future decisive operations.

Objective

Commanders in Force XXI operations will have at their disposal the most precise, lethal, and agile weapon systems and organizations the world has ever known.



Stability and support operations, such as RESTORE DEMOCRACY in Haiti, will greatly influence intelligence force development over the next decades.

Photo provided by Denver E. McPherson

To mass the effects of these potent capabilities, these commanders must be able to—

- ☐ Conduct multidimensional and simultaneous operations.
- ☐ "See" their battlespaces in depth.
- ☐ Produce an accurate common picture and share it horizontally and vertically.
- ☐ Locate with precision, track and attack high-payoff targets using both lethal and nonlethal means.
- ☐ Protect their forces throughout the operation.
- ☐ Operate jointly and multinationally.
- ☐ Track friendly forces.

The U.S. Army is developing the Intel XXI force to provide commanders with knowledge-based, prediction-oriented capabilities that can meet these demanding requirements. At the center of this concept are quality soldiers, leaders, and civilians.

This force will provide commanders with a precise "in time" presentation of their battlespace that conveys an accurate understanding of the adversary, terrain, weather and operational environment. It will provide intelligence operators the resources and tools necessary to coordinate and synchronize intelligence operations in concert with supported military operations. It will equip the force with tailorable, multispectral collection capabilities to deal with the newest emerging capabilities and technologies. These capabilities and technologies will include: automatic target recognition, on-board sensor processing, artificial intelligence tools, a common operating environment, and distributed and shared databases. It will support operations on the move using broadcast and smart "push" and "pull" technologies. Finally Intel XXI will operate as an integral part of all operations, including information operations.

Conclusion

In summary, the intelligence force of the 21st century—Intel XXI—will have the design, equipment, and training to meet the demands of future operations and Force XXI commanders. It will be a flexible, tailorable, rapidly deployable, joint and coalition-capable force. It will be a force that can access, leverage, and integrate the complementary and unique specialized capabilities of the total intelligence force. The total intelligence force includes national agencies, the Army's Intelligence and Security Command (INSCOM), strategic and operational units, active and reserve component tactical organizations, and joint and multinational forces.

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Doctrine Support to Force XXI

by Major Donald W. Cairns,
USA (Retired)

To prepare for the 21st century, the U.S. Army is making a quantum leap in lethality, mobility, and responsiveness to meet any scenario ranging from peace through war and back to peace. Harnessing the power of information and technology will create an overwhelming force at the decisive moment and location. In this revolutionary process, doctrine takes on a whole new perspective in facilitating the warfighter's mission accomplishment.

The challenge is to develop doctrine and make it available at the same pace as the Army modernizes. As the Army focus transitions from systems to capabilities, operational concepts rather than threat doctrine must be readily available at the warfighter's fingertips and built into the decision

Commanders must understand intelligence if they are to drive it

making process. Doctrine needs to evolve as operational planning concepts evolve. The "how" and "what" of our Army has changed, but the "why" remains the same as it has been for over 200 years—selfless service to the nation. We need to immediately address providing the doctrinal "how" and "what" and making it available at the same tempo as the warfighter's mission.

Integrating and Understanding Intelligence

As Force XXI capitalizes on the information and technology age, it focuses on connectivity and force tailoring to satisfy warfighting requirements in any scenario. Despite the great success achieved

in the last decade, the Army must rigorously assess organizational concepts if we are to achieve its full potential. As in the TV commercial in which the only word from the guest speaker was "Wausau," the military also has one main focus: "battle command." Battle command incorporates two vital components—the ability to lead and the ability to decide. Both components demand skill, wisdom, experience, and courage—always moral and often physical as well.

To make it work successfully, the Army developed the Battle Command Training Program (BCTP). If soldiers are to train as they fight, we must totally integrate the intelligence and electronic warfare (IEW) training program into the BCTP with supporting doctrine and the ability to have ready access at every echelon from the foxhole to the White House.

MI soldiers know IEW doctrine, but it does not stop there. An essential challenge is to provide combat arms commanders and their staffs with a working knowledge of intelligence doctrine. Commanders must understand intelligence if they are to drive it. Today commanders and their S3 or G3 need to be familiar with intelligence capabilities and understand IEW operations if they are to accurately visualize the enemy and orchestrate the battle plan.

Doctrine Must Keep Pace

As Force XXI and Intel XXI evolve, so must IEW doctrine. Our 34-series and selected 100-series field manuals and joint publications need to emerge at the same pace and maintain the same synergy. The IEW doctrine, properly focused, provides the direction to execute force projection operations. These manuals are designed to meet the needs of the combat commanders and their staff as well as provide techniques, tactics, and procedures for all soldiers executing IEW operations.

The first precept in new intelligence doctrine centers on warfighting capabilities. Warfighters must focus and drive the IEW system. The baseline doctrine identifies the five IEW force projection tenets:

- ☐ The commander drives intelligence.

- ☐ Intelligence synchronization.
- ☐ Split-based operations.
- ☐ Tactical tailoring.
- ☐ Broadcast dissemination.

Recipe for Implementing the Vision

The doctrine outlines the fundamentals of IEW operations and identifies the levels of intelligence and the measures of effectiveness. The baseline manuals will contain detail of collection management, synchronization planning, and intelligence analysis, all of which assure battlefield intelligence preparation. They explain how to assist the commander in developing priority intelligence requirements. Collectively, these manuals implement the vision of Force XXI and Intel XXI. They support the fielding of new IEW systems and the concepts of modern day warfighting. As the intelligence community reengineers, adds additional responsibilities, and develops new capabilities, the doctrine must be readily available, easy to reference, and totally understandable.

The 34-series manuals address doctrine from various perspectives. There are manuals that define and detail the IEW disciplines such as counterintelligence, human intelligence, imagery intelligence, and technical intelligence. Some manuals approach IEW by echelon, from armored cavalry

regiment through theater Army. Other manuals address IEW by systems, such as the Joint Surveillance Target Attack Radar System or the unmanned aerial vehicles. Collectively, the IEW doctrine allows easy access and reference to any issue.

Doctrine's Challenges

Army doctrine requires the dynamics of an "Internet" system. No longer is it reasonable to assume a published field manual will stay current for the normal five-year cycle. To remain current and relevant, we must continually update doctrine based on the experiences and requirements of those using it. Doctrine must be readily accessible, easy to reference, and netted into the decisionmaking process. As the Army's mission and capabilities evolve into FORCE XXI and specifically Intel XXI, our doctrinal concepts, means, and methods must evolve to meet this challenge.

Mr. Cairns is currently an intelligence operations specialist at the U.S. Army Intelligence and Security Command Training and Doctrine Support Detachment, Fort Huachuca, Arizona. He has a bachelor of science degree in Business from the University of Nebraska. Readers can reach him at (520) 533-2318/19, DSN 821-2318/19, or PROFS/E-mail jonesj2%hua1@huachuca-emh11.army.mil.

FORCE XXI IMINT

(Continued from page 31)

fighting wars but also successfully conducting non-war military operations where military capabilities synchronize with other U.S. and foreign government agencies, nongovernment agencies, and the United Nations to conduct peace-related, humanitarian, and disaster-relief operations. In effect we must learn to apply the same intensity of battlefield dominance

to synchronize non-war stability and support operations.

IMINT will not read minds but it will allow one to more fully understand the challenges encompassed by an area of operations. It may (combined with other sources of information) allow the Army to achieve, as Sun Tzu said, "The highest principle in the Art of War is to win without a battle."

Major "Dan" Smith is the imagery intelligence staff officer for the Policy, Operations, and Doctrine Division in the Department of the Army (DA) Office of the Deputy Chief of Staff for Intelligence and the DA point of contact for the DCI-approved policy on imagery-derived unclassified products mentioned in the article. Major Smith is currently Deputy G2, 29th Infantry Division (Light), Virginia Army National Guard. He has a Master of Fine Arts from George Mason University. Readers can reach the author at (703) 695-6195, or DSN 225-6159.

MI CORPS HALL OF FAME

Lieutenant Colonel (Deceased) Richard M. Sakakida

In 1988, the military intelligence (MI) community honored Lieutenant Colonel (LTC) Richard M. Sakakida with induction into the MI Corps Hall of Fame (HOF) at Fort Huachuca, Arizona. One of MI's many silent heroes, LTC Sakakida was a "Nisei," the name given to second generation Japanese-Americans. He served during World War II, in a time when Nisei and their "Issei" parents were not trusted as loyal Americans. Despite the poor treatment of Japanese-Americans, many Nisei soldiers, like LTC Sakakida, went on to prove not only their loyalty to the United States, but also their heroism in the face of the enemy, their ancestors.

LTC Sakakida began his career in the military when he enlisted in the Army Corps of Intelligence Police (CIP). He later had a second career in the U.S. Air Force at the Office of Special Investigations from which he retired as a lieutenant colonel.

LTC Sakakida had a unique gift—he could speak Japanese and English fluently, and he was a Nisei. These qualities made him an ideal candidate as a translator and counterintelligence operative. In 1941 he was one of 15 Nisei operatives trained by the Federal Bureau of Investigation to serve as part of the Corps of Intelligence Police in an undercover capacity in the Philippines. After completing his training, then Master Sergeant (MSG) Sakakida entered Manila posing as an anti-American, draft-dodging merchant seaman. He used this cover to collect information on prominent Filipino companies, their investments, and their possible affiliation with the Japanese. The information later found use in

determining Filipino loyalty to Japanese forces.

Later, when war broke out, he once again donned a uniform and served as interpreter for General Jonathan Wainwright at the surrender of Bataan. Just before Corregidor fell, he received orders to evacuate and report to Australia, where interpreters were in short supply. On the day of his scheduled flight, he relinquished his seat to Clarence Yamagata, a lawyer and family man employed by the Consulate in Manila. As a result of this gracious act, MSG Sakakida fell prisoner to the Japanese after the surrender of Corregidor.

He remained a prisoner of the Japanese for nine months in Bilibid Prison. During his captivity, he maintained a cover story that he had served in the U.S. military against his will. He endured relentless interrogation and torture at the hands of his captors. During one session, they dislocated both of his shoulders; this resulted from his hanging from building rafters with his arms bound behind him. He never strayed from his story and was thus able to win the trust of the Japanese.

The Japanese were so confident that his story was true that he gained release on 11 February 1943. Japanese Colonel Nishiharu of the 14th Army legal staff needed a reliable interpreter and MSG Sakakida fit the bill. An inquisitive Japanese major, still suspicious of MSG Sakakida, decided to test the validity of his story. The major reasoned that if



MSG Sakakida was really a civilian forced into military duty he would not have a knowledge of weapons maintenance. The major ordered MSG Sakakida to clean a .45-caliber pistol. If he "field stripped" the weapon it would compromise his cover. He cleaned the .45 and the barrel and handle gleamed, but he had not disassembled the weapon. This was one of many times MSG Sakakida barely averted disclosure.

During this period, he was able to gain information on the Imperial Army's shipping schedules and routes leading into and away from Manila Harbor. He passed this information on to Filipino guerrillas known as the "ROTC Group." The information relayed by the ROTC Group to the Allies provided the basis for submarine missions into Manila Harbor.

A few months later, the Japanese captured 500 members of the ROTC Group, including their commander. He had established a conduit through this Filipino officer to funnel information to Gen-

eral MacArthur. MSG Sakakida feared that if tortured, the prisoners might betray his cover. His only hope was to stage an escape for them. He forged a visitation permit to obtain entrance to Muntinglupa, the prison where the Japanese were holding them. Dressed in a Japanese officer's uniform, he lead a small group of ROTC Group "prisoners" into the camp and they overpowered the guards. The ROTC Group prisoners escaped and MSG Sakakida had again avoided detection.

Soon the Japanese 14th Army was in combat. MSG Sakakida was finally able to flee in June 1945; he rejoined the Filipino guerrillas and during a firefight received stomach wounds from shell fragments. The guerrillas left him behind but he managed to dig out the shrapnel with a razor blade and live off the land for four long months. Finally on 25 September 1945, war-torn, his uniform in shreds, and suffering from unhealed wounds, MSG Sakakida was able to reunite with the Allied Forces. At first the encounter was tense, since MSG Sakakida appeared to be an enemy soldier. Luckily he was able to convince the soldiers that he was in fact, an American. He learned then that the war was over and he could return home.

After MSG Sakakida left the Army he joined the U.S. Air Force and retired in 1975 with a rank of Lieutenant Colonel. He served his second career in the military within the Office of Special Investigations.

Due to the secrecy of his mission during World War II, LTC Sakakida never received any awards for his valorous actions. Until recently, he was ineligible for awards such as the Medal of Honor or the Distinguished Service Cross because of the statutory deadlines that apply to such awards. In a recent effort by the United States Congress and Senator Daniel K. Akaka (Hawaii), the Senate passed legislation that would allow a one-time look back into the records of intel-

ligence personnel who served during WWII to see whether they deserve decorations and awards. President Clinton signed the legislation on 10 February 1996.

LTC Sakakida passed away on 23 January 1996 after a lengthy illness complicated by his war wounds. Clearly LTC Sakakida represented the MI Corps and our Army with distinction and valor. It is unfortunate he did not live to receive any recognition this second chance legislation may deem appropriate.

The MI Corps inducted LTC Sakakida into the Hall of Fame in 1988. The points of contact for this biography are Captain Vivian Santistevan and Chief Warrant Officer Two Robin Doran, (520) 533-1181, DSN 821-1181, or E-mail santiste@for 3083.army.mil.

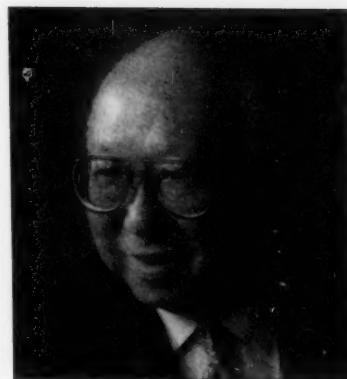
1996 Hall of Fame Inductees

The MI Corps will induct the 1996 selectees during the Hall of Fame ceremonies 27 and 28 June at Fort Huachuca, Arizona. These distinguished Americans made outstanding contributions to our country, the U.S. Army, and the MI Corps. We will honor the following individuals:

Specialist Harry M. Akune

Harry M. Akune entered the United States Army on 12 December 1942 from the Amache relocation camp, Colorado. He and his family had been relocated as part of the government's action to remove 120,000 Japanese Americans from the West Coast during World War II. After graduating from the MI Service Language School, he served as a translator and interpreter for the U.S. 33rd Infantry Division in British New Guinea.

In November of 1944, Specialist Akune was attached to the 503rd Parachute Regimental Combat Team (RCT). He provided intelligence services for the amphibious invasion of Mindoro Island which became a vital base for the U.S. aerial war against the main



Specialist Harry M. Akune

Japanese forces in the Philippines on the island of Luzon. The 503rd Parachute RCT became the lead unit in retaking the fortress of Corregidor. The fortress was the key to Manila Harbor and the site of the surrender of U.S. and Filipino forces in 1942. This was the greatest defeat in U.S. military history.

Without formal parachutist training, on 16 February 1945 Specialist Akune was among the first Americans to land among the splintered tree stumps, rubble and enemy fire on the heavily defended island fortress. As with most parachute operations, the initial period required everyone to fight as an infantry soldier, and Specialist Akune did that with distinction. Shortly after landing, he was able to extract timely and valuable intelligence from the prisoners taken and documents he translated. Specialist Akune demonstrated that a human intelligence capability is essential for success in a wide variety of combat situations. The after-action report by the 503rd recommended the permanent assignment of an intelligence specialist to every combat operation.

Specialist Akune's commander stated many times that his personal bravery and truly outstanding actions allowed our forces to take rapid and effective offensive action against a larger enemy force, thereby shortening the duration of the campaign and significantly reducing the number of American casualties. Specialist

Akune has enjoyed the admiration, affection and gratitude of his fellow paratroopers who consider him one of their own.

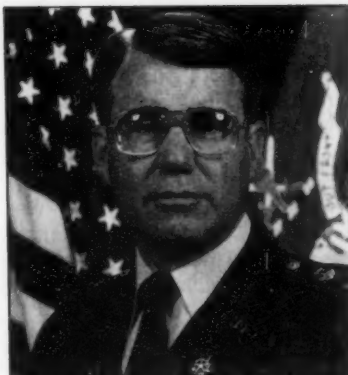
Colonel (Retired) John H. Black

Colonel Black's career spans more than 29 years and includes most of the challenging assignments available to an MI commissioned officer. At a time when MI was held in low esteem by many commanders, he worked hard to overachieve in order to give MI, in his area of influence, the visibility it deserved. At every echelon from company through corps, Colonel Black has gained a reputation as a training innovator.

As S2 of the 2/17th Cavalry Squadron, 101st Airborne Division in the Republic of Vietnam, he was the only MI officer serving at battalion level in the division. As commander of the 105th MI Battalion, he provided enhanced support to several National Training Center rotations as well as to Exercise Team Spirit in Korea. Colonel Black was the principal design influence on the MI Officer Advanced Course (MIOAC) as it is currently taught. He reoriented its focus to preparing officers for company command, battalion and brigade S2, and to be all-source intelligence officers.

Colonel Black was chosen by name to be the Deputy G2 of Third Army during Operations DESERT SHIELD and DESERT STORM. During his tour, he developed the intelligence electronic warfare synchronization plan and matrix used to synchronize G2 operations to meet and adjust to the requirements of the commander's battle plan. This innovation has been fully integrated into MI doctrinal manuals since the end of hostilities in Southwest Asia.

Colonel Black's last duty assignment was as the TRADOC System Manager, Ground-Based Common Sensor (GBCS). In this position he successfully articulated the requirements for five



Colonel John H. Black



Colonel Robert J. Kelly



Colonel James H. P. Kelsey

major systems, including the Advanced QUICKFIX, the GBGS, and the TROJAN Special Purpose Integrated Remote Intelligence Terminal (SPIRIT). Colonel Black played a pivotal role in establishing the ground work for a training vision that will lead the MI Corps into the 21st century.

Colonel (Deceased) Robert J. Kelly

Colonel Kelly served his country in myriad positions of ever increasing responsibility from November 1967 until his untimely death in a helicopter accident on 23 February 1993. Colonel Kelly began his career as an armor platoon leader. Upon completion of his first tour, he became MI and received an assignment to the First Field Force in the Republic of Vietnam. There he was very involved in the evolution of signals intelligence on the battlefield.

Colonel Kelly served in various staff positions, including a tour in Riyadh, Saudi Arabia, where he was the team chief assigned to instruct Saudi officers in S2 functions. In 1988 he assumed command of the 109th MI Battalion, 9th Infantry Division. He studied German at the Defense Language Institute and attended the Command and General Staff College, and the Naval War College where he earned a master's degree.

Colonel Kelly's final assignment was as the Assistant Chief of Staff, G2, V Corps. He was known as a dedicated, tenacious intelligence officer who relished his role as mentor and team player during his entire career. Colonel Kelly was instrumental in developing doctrine, designing the future structure and, most significantly, implementing the split-based, seamless architecture to support key deployments of MI units in Europe.

Tragically, Colonel Kelly's great potential was not fulfilled. He was both a futurist and a realist who had a vision and knew how to implement it. He leaves us his legacy as a role model for future generations of officers.

Colonel (Retired) James H. P. Kelsey

During an extraordinary 30-year career, Colonel Kelsey was instrumental in focusing efforts toward a modern U.S. Army's intelligence capabilities in the

21st century. Commissioned an infantry second lieutenant in 1965, Colonel Kelsey served two tours of duty in Vietnam with the 25th Infantry Division. In July 1969, Colonel Kelsey branch-transferred from infantry to military intelligence. He became a MIOAC instructor and was responsible for revising instruction on tactical intelligence.

Colonel Kelsey has served in various staff positions and commanded at all levels. As Commander 527th MI Battalion, 66th MI Brigade, Colonel Kelsey established new bilateral counterintelligence operations with several North Atlantic Treaty Organization allies. Absorbing the mission of two other battalions, he integrated all-source operational and TEM-PEST security, offensive and defensive counterespionage, signals security, and operations against the Soviet Military Mission.

In 1986 Colonel Kelsey returned to Fort Huachuca and assumed the position as the Assistant to the Chief of Military Intelligence (OCMI). He was instrumental in the genesis of the MI Corps under the Army Regimental System on 1 July 1987. Colonel Kelsey was directly responsible for establishing the MI Corps HOF and developed the groundwork for the formal ceremony you are witnessing today.

In his last assignment, Colonel Kelsey served as the dual-hatted Chief of Staff and Garrison Commander, U.S. Army Intelligence Center and Fort Huachuca. He established an effective dialogue with local, state, and federal agencies to enhance community relations, and awareness of Fort Huachuca and its value to state and nation. He effectively worked to retain Fort Huachuca as one of the Army's essential base complexes as viewed by the Base Realignment Commission.

He oversaw the design, building, and occupancy of the largest construction project in the Army with the completion of the Intelligence Center Base Realignment

complex to house the Fort Devens elements relocated to Fort Huachuca. With his forethought and planning, the relocation of units from Fort Devens to Fort Huachuca went smoothly with no soldier training time lost. Colonel Kelsey's military career was long, proud, and exemplary. The MI Corps will continue to feel his impact for years to come.

Major (Retired) Kan Tagami

Drafted into the U.S. Army on 16 February 1941, Major Tagami attended basic training with the 53d Infantry Regiment at Fort Ord, California. Just prior to the Japanese attack on Pearl Harbor, a survey of qualified Japanese linguists in the Army turned up only 19 fluent soldiers. With the dire need for linguists, the Army began actively recruiting Japanese-American soldiers to fill the void. Major Tagami attended the first class at the MI language school at Camp Savage, Minnesota. An excellent student, he was chosen as one of the few noncommissioned officer instructors at the school.

Major Tagami was the only member of the U.S. Occupation Forces to have a private audience with the Emperor

As the war intensified, Major Tagami volunteered to lead a 15-man language detachment behind Japanese lines to gather information. He also volunteered for many combat intelligence patrols. Major Tagami helped capture and interrogate Japanese prisoners of war, gaining vital intelligence on the strength of Japanese troops. On one such occasion, while interrogating a Japanese prisoner of war (POW) at a field hospital, Major Tagami discovered that the responses of the POW were diametrically opposite of those at an earlier interrogation. The Nisei interpreter



Major Kan Tagami

who had questioned the POW first, had never been to Japan. He did not realize that the POW had falsified his story. Major Tagami quickly provided his commander the correct version of the information, which proved invaluable to the mission and saved many American lives.

After the war was over, Major Tagami's next assignment was General Douglas MacArthur's Aide-de-Camp. In this position, he assumed a very important role in the Army of Occupation of Japan. He provided General MacArthur with sound advice regarding Japanese culture, ethics, law and customs critical to the Army of Occupation of Japan. His personal advice did much to allow a smooth, peaceful, and successful transition of Japan to a democratic society.

During this assignment, General MacArthur directed Major Tagami to visit the Emperor of Japan to discuss a personal problem facing the Emperor. This was unprecedented under Japanese protocol. Major Tagami was the only member of the U.S. Occupation Forces to have a private audience with the Emperor.

There is little doubt that Major Tagami's professional acumen, both as a Japanese linguist and as an intelligence operative left an indelible mark on the course of our MI profession.

PROPONENT NOTES

MI Corps Hall of Fame Activities Scheduled

Fort Huachuca will host the 1996 Military Intelligence (MI) Corps Hall of Fame (HOF) on June 27 and 28. Major General Charles W. Thomas, Chief of the MI Corps, approved the selection of the following MI professionals for induction into the HOF: Specialist Harry M. Akune, Colonel (Retired) John H. Black, Colonel (Deceased) Robert J. Kelly, Colonel (Retired) James H.P. Kelsey, and Major (Retired) Kan Tagami. The biographies of the inductees begin on page 55.

The two-day event will include a welcome reception hosted by Major General Thomas, the induction ceremony, and a golf tournament.

National Senior Intelligence Course

This two-week seminar-style course focuses on 21st century challenges for U.S. national security, intelligence and strategy: global change, information technology, future conflict, peace operations, public diplomacy, media impact, the role of Congress, future requirements, and financial management. The class is open to field grade officers and civilians in grades GS or GM 13 through 15. Army billets for the course are limited. Clearance requirements are top secret with secure compartmented intelligence access.

The next iteration of the course will be from 5 through 16 August 1996; fiscal year 1997 will have three classes. The location for the course is the Defense Intelligence Agency Center at Bolling Air Force Base, in Washington, D.C. For more information, contact the Course Director, D. H. Dearth, at (202) 231-3290, DSN 428-3290, or via E-mail at dhdearth@aol.com. The National Military Intelligence College Enrollment Officer, Ms. Pat Lanzara, is at (202) 231-2797 or DSN 428-2797.

The HOF ceremonies will also include a facility dedication, naming Fort Huachuca's new operations building in honor of Colonel Robert J. Kelly. The HOF activities will culminate with the MI Corps Ball the evening of June 28th.

Anyone interested in attending the HOF activities should contact the Office of the Chief of Military Intelligence (OCMI). The point of contact for the Hall of Fame is Captain Santistevan, (520) 533-1181, DSN 821-1181, or PROFS/E-mail santiste @ for3083. army.mil.

The Intelligence Museum Opens

On 2 November 1995, in a ceremony attended by more than 200 people, the MI Corps Museum officially opened. Representing Major General Charles W. Thomas, Brigadier General John W. Smith and the Honorary Colonel of the Corps, Brigadier General (retired) George J. Walker, cut the ribbon officially opening the museum. Museum visitors can now view the story of MI's evolution within the U.S. Army.

The history of the museum is a fascinating one. In 1978, the first intelligence museum was in what is now affectionately referred to as "Splinter Village" on Fort Huachuca. With the statue of the Sphinx out in front, it was the only historical representation of the MI Corps. Unfortunately, this small, obscure museum closed due to budget constraints. The museum never reopened, although concerned MI professionals attempted to reopen it at another location. Until the opening of the new museum on 2 November 1995, MI was the only combat support branch that did not have a museum to represent its heritage.

The new museum is a labor of love, developed in concept and overseen by the Fort Huachuca Command Historian, Mr. James Finley, and his staff. In June 1995, the Post Commander reserved the vacated former print plant building for the Intelligence Museum. With a lot of volunteer hours and dollars from the Intelligence Museum committee, the museum was made ready for its grand opening in November.

The Intelligence Museum is much more than it's visual displays; it is about the preservation of our heritage. While what has come to be known as the "Post Museum" focuses on the legacy of the early fort, its inhabitants, protection of settlements against hostile Indians, and the exploits of the heroic Buffalo Soldiers, the Intelligence Museum will focus on the growth of Army Intelligence into the branch we have become today. "Intelligence is for Commanders" is the cornerstone of current U.S. Army intelligence doctrine. The evolution of that idea over the last 200 years is the subject of the Intelligence Museum.

Next time your duties or pleasures bring you back to the Home of Military Intelligence, schedule time to visit the Intelligence Museum. It is located at the corner of Cristy and Hungerford streets and is open Monday, Wednesday, and Friday from 1000-1400 and on weekends from 1400-1600. The newly opened MI Museum Store, will operate Monday, Wednesday and Friday from 1000-1400. The store carries many hard-to-find MI items, from clothing to glassware. Call (520) 533-1127/1132 or DSN 821-1127/32 for more information. The point of contact for this article is Captain Santistevan at the same telephone numbers and E-mail address.

RESERVE COMPONENT

RTS-Is Become ARISCs

On 1 October 1995, the five Regional Training Sites-Intelligence (RTS-Is) have been redesignated Army Reserve Intelligence Support Centers (ARISCs). An expanded mission comes with this new name. Traditionally a focus for Reserve Component (RC) military intelligence (MI) unit and section training, the ARISC staff and facilities will now pick up the complementary mission of facilitating contributory support of the Active Component (AC)'s peacetime intelligence mission by the U.S. Army Reserve (USAR)'s MI unit force.

RC MI Units Support Bosnia Deployment

In January, approximately 118 soldiers from the USAR's 1st MI Center in Phoenix, Arizona, and the 338th MI Battalion (Tactical Exploitation) in Fort Meade, Maryland, mobilized to support Operation JOINT ENDEAVOR. These soldiers may expect to be on active duty for up to 270 days. The primary focus and rationale for the call-up is to backfill AC MI soldiers deploying to Bosnia.

FAISS Upgrade

The Army National Guard (ARNG), working through U.S. Forces Command (FORSCOM), has initiated an upgrade to the FORSCOM Automated Intelligence Support System (FAISS) computers found in ARNG enhanced brigades and combat divisions. This upgrade improves the central processing unit, hard drive, compact disk read-only memory (CD-ROM) drive, monitor, and software. Operating in Windows 3.11, the software provides terrain analysis, database

management, graphic display of enemy and friendly situations, and rapid networking. The new software can access map and terrain data in any standard Department of Defense or government format. The software developer made a proposal to allow file transfer between FAISS and Active Army systems. The move of the FAISS software from a Microsoft disk operating system (MS/DOS) environment to a Windows environment means significantly less initial training and sustainment for operators. This set of upgrades provides ARNG units with an automated capability to gather, process, display, and disseminate intelligence in various forms. It also provides a significant capability for support of ARNG units engaged in civil defense missions. Replaced in the AC by the All-Source Analysis System (ASAS), FAISS will probably remain in use in Guard units into the 21st century.

MI Precommand and Preassignment Courses

The MI Precommand Course (PCC) provides the identified MI commanders and G2 designees with a review of major doctrinal, organizational and process developments ongoing at the MI Proponent and in the intelligence community as a whole. The two-week PCC is an important step in the development of effective MI commanders and G2s. The Pre-Assignment Course (PAC) is the senior noncommissioned officer (NCO) equivalent of the PCC. Class dates often parallel each other so that commanders and sergeants major may attend together.

RC officers and NCOs are encouraged to attend. Traditionally, a number of seats are set aside in each class for the ARNG and USAR. Class dates follow:

CLASS #	PCC/PAC CLASSDATE
97-02XX	18 Oct 96
97-05XX	13 Jan 97
97-08XX	21 Apr 97

The point of contact for the PCC and PAC is Mr. Ken Welsh, (520) 533-6527, DSN 821-6527, E-mail 103424,2222 (CompuServe), or PROFS/E-mail welshk%hua1@leav-emh.army.mil.

ARNG Training Workshop

The ARNG Training Workshop has been tentatively scheduled for 17 through 20 October 1996. The focus will be on ASAS fielding and ACE operations.

Knowlton Award

The MI Corps Association recently presented the prestigious Knowlton Award for significant contribution to the MI profession to the first USAR soldier to be so honored. Chief Warrant Officer Three Michael Cuneo is in large part responsible for implementing the initiative to assign a portion of the AC's peacetime intelligence mission to the RC's MI units. He serves at the Southeast ARISC, Fort Gillem, Georgia.

Colonel John Craig is the USAR POC and Major(P) Steve Ponder is the ARNG POC. Readers can contact them at voice (520) 533-1177/76, DSN 821-1177/76, and FAX 821-1762. Colonel Craig's PROFS/E-mail address is craigj%hua1@huachuca-emh 11.army.mil. Major Ponder's E-mail address is ponder@al.com.

LETTERS

(Continued from page 5)

base, remains in the main command post. The functions of the DISE are to command and control the real-time collection systems of the division, pull current information from the division ACE and higher, feed real-time battlefield information to the ACE and, as LTC Keller put it, "provide our commander the intelligence support he needs to protect his combat strength and focus power at the right time and place to win on any battlefield."

Lieutenant Colonel John R. "Randy" Brooks, G2, 4th ID (M)
Fort Hood, Texas

To the Editor:

The *Military Intelligence* October-December 1995 bulletin contained a number of interesting articles on MI training. I have a few comments on the article by Senior Master Sergeant Alan R. Dowling, titled "Air Force Intelligence Training: Vector to the 21st Century." The lead sentence piqued my interest. "U.S. Air Force intelligence has always been geared to the needs of the warrior." A review of the history of Air Force intelligence (AFI) and a perusal of the budget authority allocated from operations to AFI out of the Air Forces Total Obligation Authority (TOA) might cause an objective historian to characterize the relationship between operations and intelligence in the Air Force differently. What percentage of operational TOA, Major Force Program 1,2,3 or 4 funds (minus tactical and consolidated cryptologic program resources)

has gone to fund intelligence systems? How many Air Force Major Force Program 6 (research, development, training, and education funds) dollars (outside various "national" sources) were invested in innovations to improve intelligence operations? The next comment that gained my attention was the notion that, "Cryptologic intelligence has focused primarily on the needs of national consumers and has held a more strategic view. This line sounds like a revisionist historian writing a new book on the politically correct operator's view of history. The efforts of intelligence professionals throughout history have demonstrated the ability of 'the system' to support operations and help them succeed. Did the actions of cryptologic professionals during Midway and the shootdown of Admiral Yamamoto focus on 'national consumers?' Was the success of the air-to-air battles in the Korean war the result of a 'strategic view?' Were we able to pick up downed airmen behind enemy lines during the war in Vietnam because of a national focus? Did the creation of some rather unique reporting actions during DESERT SHIELD and DESERT STORM come from operations or professionals in the cryptologic system with an ability to support operations in a timely fashion? The apologist attitude and the apparent disdainful tone for a national and strategic focus in the article, coming from a cryptologist, is a bit surprising. I would suggest that intelligence staff personnel at the Air Staff should be greater advocates of the intelligence profession, not purveyors of operational rhetoric. The tone

of this article continues the all too often heard "noise" that the intelligence professional in the Air Force must work harder to be a part of the team. My 23 years experience in the profession proved I had to develop a maverick-like, aggressive attitude, just like the "warriors," because they did not readily accept the benefits of intelligence. But there are better ways to advocate the intelligence profession.

Lieutenant Colonel Lowrey's article "Center Without Walls: Training for the Information Age," Major Darrell W. Bott's article "Maintaining Language Proficiency" and a letter to the editor by Major George J. Franz show the professional mettle of the Army MI officer in the information age. This professionalism did not come from genuflecting to the revered operational dogmas of the time but from the forceful advocacy of a systematic integration of intelligence and operations. I have been professionally jealous of the respect I saw the Army leadership of the 1980s give to intelligence. I enjoy reading this professional pamphlet and wish there was some parallel in the Air Force.

Major Bradley V. Riker,
USAF (Retired)
Salinas, California

Correction/Clarification

Page 48 in the January-March 1996 issue of the *Military Intelligence Professional Bulletin* contained an incorrect heading, "CMF 97 Update." Career management field 97 administers the Band branch. There are some military occupational specialties (MOSs) 97 under CMF 96 (intelligence). The number of the CMF does not always correspond to the numbers of the MOSs it administers.

Korean War Veterans 1996 Convention

From 23 to 27 July 1996, St. Louis, Missouri, will be the site of the 12th Annual Reunion of the Korean War Veterans Association, Inc. KWVA is a national organization of more than 15,000 veterans who served in the armed forces during the Korean War (June 1950 to January 1955) or in Korea from 1946 to the present. The five-day convention is primarily social although there will be a ceremony marking the 43rd anniversary of the Korean War Armistice (27 July 1953). Additional information on the conference is available from the KWVA at 117 Mark Drive, Fairview Heights, IL 62208, or 1-800-603-6555. The address of the KWVA is P.O. Box 10806, Arlington, VA 22210-2129.

704th MI Brigade



The crest consists of a silver heraldic rose with blue petals and red barbs between, above a red scroll with silver ends inscribed with the motto "HERE AND EVERYWHERE" in silver letters. The rose, adapted from the Branch insignia, represents military intelligence (MI) and is a traditional symbol of secrecy. The red barbs between the petals represent patriotism and zeal, and form a pentagon behind the rose, a further military reference. The rose is oriental blue and silver, representing the MI Branch. The red, silver (white), and blue symbolize the United States.

The mission of the 704th MI Brigade, a major subordinate command with the U.S. Army Intelligence and Security Command (INSCOM), is to conduct signals intelligence (SIGINT) operations in support of Army, ground component, and joint warfighters; integrate reserve forces into the Brigade; provide qualified, technically trained soldiers to support operations of the National Security Agency (NSA); and execute operations to support land component commanders' information warfare and information operations. Soldiers from the 704th MI Brigade have participated in Operations JUST CAUSE,

DESERT SHIELD and STORM, RESTORE HOPE, UPHOLD DEMOCRACY, and Joint Task Force Eagle.

The lineage of the 704th MI Brigade dates back to 1954, when the U.S. Army Security Agency (ASA) created a Troop Command, dedicated to supporting the National Security Agency (NSA). In 1955, both NSA and the Troop Command relocated to Fort George G. Meade, Maryland. In December 1957, the Troop Command became the ASA Support Element, comprising a Headquarters Detachment and three companies, one of which consisted entirely of Women's Army Corps (WAC) personnel. In January 1977, ASA became INSCOM and the ASA Support Group became the continental U.S. (CONUS) MI Group. By 1981, the CONUS MI Group reorganized its companies into battalions, and Field Station Key West in Florida became subordinate to the 2d Battalion. Then, in January 1987, the Army redesignated the CONUS MI Group as the 704th MI Brigade. The 1st Battalion became the 741st MI Battalion, the 2d Battalion became the 742d MI Battalion, and the Brigade absorbed what was then Field Station San Antonio as the 748th MI Battalion. In June 1989, at the request of the 704th MI Brigade commander, the Army Reserve Personnel Center activated the 2264th Individual Mobilization Augmentation (IMA) Detachment as an administrative and logistical base for qualified locally assigned reservists seeking additional training opportunities. October 1990 saw provisional activation of the 743d MI Battalion which the Army approved in 1991 as a 704th MI Brigade subordinate battalion.

Throughout its 42-year history, the Brigade has adapted to progressively more sophisticated technological requirements in the face of a changing world order. The Brigade's current structure is based on a division of expertise, governed both by mission and geography. The 704th MI Brigade headquarters (permanent party, students, Army personnel attached to NSA), the 741st (NSA Operations Directorate), 742d (the Army Technical Control and Analysis Element (TCAE)), and 743d (worldwide SIGINT) MI Battalions are all at Fort Meade, Maryland. The 748th MI Battalion, the Army element at the first Regional SIGINT Operations Center (RSOC), is at Lackland Air Force Base near San Antonio, Texas. The 742d MI Battalion has a detachment in Utah and the 743d MI Battalion has companies and detachments in both CONUS and overseas locations.

The Brigade is deeply involved and proud of its participation with the Reserve Component. The TCAE Augmentation Detachment provides trained and ready reserve forces to support the Army TCAE run by the 742d MI Battalion. The Brigade has a direct training association and is forming a wartime planning association with Company C, 142d MI Battalion, 300th MI Brigade, Utah National Guard. This unit provides linguistically trained personnel in support of the NSA mission. These programs involve over more than 300 reserve personnel.

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